





2022 MYSTIK® PRODUCT GUIDE

ENGINE OILS • AUTOMOTIVE GEAR OILS • TRANSMISSION/ POWER FLUIDS • GREASES • HYDRAULIC FLUIDS

- INDUSTRIAL GAS ENGINE OILS FUNCTIONAL PRODUCTS
- COMPRESSOR LUBRICANTS







This Mystik Lubricants product guide is your directory to Mystik fluids, greases and their applications.

This year, we added all the grease from CITGO Lubricants to the iconic Mystik brand to simplify your ordering needs. This expanded line means all the greases for all your applications will be covered within this product guide.

Products are not available at all source points. Please check product availability and container sizes for your normal source point(s).

Technical information and assistance:

Product Answer Line

800-248-4684 lubeshelp@citgo.com

Pre-shipment inquiries:

Order Management

800-331-4068, option 1 ordermanagement@citgo.com

Pricing, availability, post-shipment inquiries:

Customer Service

800-331-4068, option 2 lubescs@citgo.com

Properties shown are based on typical values for the product only and do not constitute a specification. The information contained herein is subject to change without notice.

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Please visit **www.www.mystiklubes.com** for the most up-to-date information on products or for Safety Data Sheets.

TABLE OF CONTENTS

Mystik® JT-6® Low Temp #2 Grease 63-64
1-2 Mystik® JT-6® Low Temp SynBlend #2 Grease 65-66
3-4 Mystik® JT-6® Marine Multi-Purpose #2 Grease 67-68
Mystik® JT-6® Multi-Purpose #2 Grease 69-70
5 Mystik® JT-6® Synthetic 100 #1 Grease 71-72
Mystik® JT-6® Synthetic 220 #2 Grease 73-74
6-7 Mystik® JT-6® Synthetic 460 #00 Grease
Mystik® JT-6® Synthetic 460 #1 & #2 Grease 77-78
8-9 Mystik® JT-6® Synthetic Electric Motor #2 Grease 79-80
0-11 Mystik® AluPlex® Plunger Greases
Mystik® CalSuPlex® 5% Moly #2 Grease 82-83
Mystik® CalSuPlex® Multi-Purpose #2 Grease 84-85
2-13 Mystik® Centralized System #0-00 Grease 86-87
1-15 Mystik® Cotton Picker #00 Grease
Mystik® Curve Rail Greases
6-17 Mystik® General Purpose #2 Grease
3-19 Mystik® High Speed Coupling Grease 91-92
0-21 Mystik® Lithium Extreme Pressure Greases
Mystik® LithoPlex® 3% and 5% Moly Greases 95-96
2-23 Mystik® LithoPlex® Dye Free #1 Grease
I-25 Mystik® LithoPlex® Industrial Greases
6-27 Mystik® LithoPlex® Mining Greases
Mystik® LithoPlex® Multi-Purpose Greases 102-103
3-29 Mystik® LithoPlex® Multi-Purpose Red #2 Grease 104-105
Mystik® LithoPlex® Pellet Mill #2 Grease
0-31 Mystik® LithoPlex® Plunger 320 Greases 107
Mystik® LithoPlex® Power Tool #2 Grease 108-109
. 32 Mystik® LithoPlex® Red Tacky Greases
Mystik® Open Gear #1.5 Grease
Mystik® Railroad Traction Motor Gear Grease
3-34
HYDRAULIC FLUIDS
5-36 Mystik® JT-9® LeakShield™ AW Hydraulic Oils 115-116
7-38 Mystik® Anti-Leak Industrial Oil
9-40 Mystik® Hydraulic Jack Oil
1-42
INDUSTRIAL GAS ENGINE OILS
Mystik® Terra® 340 Gas Engine Oils 119-120
Mystik® Terra® 500 Gas Engine Oil SAE 15W-50 121-122
3-45 Mystik® Terra® Free Ashless Gas Engine Oils 123-124
6-47 Mystik® TerraSyn™ Irrigation Engine Oil
3-49
0-51 FUNCTIONAL PRODUCTS
. 52 Mystik® Bar and Chain Lubricant
8-54 Mystik® Rock Drill Oil 150
Mystik® Tool Joint Compound #1 130-131
Mystik® Turbine Drip Oil
5-56 Mystik® ViscidLube® Oil Treatment
7-58 Mystik® Non-Detergent General Purpose Oils
9-60
1-62

TABLE OF CONTENTS—(Cont'd.)

COMPRESSOR LUBRICANTS Mystik® Ammonia Compressor Oil 68 136-137 AGRICULTURAL PRODUCTS Mystik® JT-8® Premium Gasoline Motor Oils 138-139 Mystik® JT-8® Premium Gasoline Synthetic Motor Oils......140-141 Mystik® JT-8® Synthetic Blend Super Heavy Duty Mystik® JT-8® Synthetic Blend Super Heavy Duty Mystik® JT-8® Synthetic Blend Super Heavy Duty Engine Oils SAE 10W-40 and SAE 15W-50. 145-146 Mystik® JT-8® Synthetic Engine Oil 5W-40 147-148 Mystik® JT-4® Synthetic 4-Cycle All-Terrain Mystik® JT-4® 2-Cycle Lawn and Mystik® JT-7® Multi-Purpose Gear Lubricants 153-154 Mystik® Gear Lubricant SAE 90 155-156 Mystik® JT-5® Synthetic Blend TFX Mystik® JT-5® Tractor Trans-Hydraulic Fluid...... 160-161 Mystik® Lubricants Tenax® Fluids 164 Mystik® Cotton Picker #00 Grease 165 Mystik® JT-6® High Temp Greases. 166-167 Mystik® JT-6® Multi-Purpose #2 Grease 168-169 Mystik® JT-6® Heavy Duty SynBlend 460 #2 Grease. 170-171 Mystik® JT-9® LeakShield™ AW Hydraulic Oils. 172-173 Mystik® TerraSyn™ Irrigation Engine Oil. 175-176 Mystik® Bar and Chain Lubricant 177 Mystik® Non-Detergent General Purpose Oils 179 REFERENCE INFORMATION SAE J300 & SAE J306 Viscosity Grades 180 Comparative Viscosity Classifications 181 Mystik® Grease Characteristics Chart 182-183 ASTM D4950 Standard Classification and Specifications for Automotive Service Greases 184 Grease Thickener Compatibility Chart 185 Lubricant Storage and Handling and Shelf Life and Guidelines 186-190 Approximate Equivalence of Viscosity

Mystik® JT-8® Premium Gasoline Motor Oils



OVERVIEW



- Advanced, fuel-efficient synthetic blend formulas exceed the latest warranty requirements of car manufacturers for gasoline engines and meet the latest API Performance and Resource Conserving ratings.
- Premium detergent/dispersant formulations guard against sludge, reduce deposits, and protect against rust, corrosion, and wear.
- Superior durability, even under severe service conditions, provides complete confidence that your
 engine oil is providing the fullest protection possible.

FEATURES & BENEFITS



- Maximum protection against deposits.
- Protect today's Gasoline Direct Injected (GDI) engines from Low Speed Pre-Ignition (LSPI).
- Special combination friction modifiers provides increased friction control.
- Multi-viscosity, thermally stable, and durable formulations provide maximum year-round protection.
- Improved timing chain wear protection, piston cleanliness, and fuel economy.

APPLICATIONS



- Highly recommended for all carburetor-equipped or fuel-injected gasoline engines including turbocharged, supercharged, and other high-performance models.
- The 5W-20, 5W30, and 10W-30 viscosity grades are recommended for applications calling for oils meeting ILSAC GF-6A and API SP/Resource Conserving.
- All viscosity grades are licensed for API SP and are backward-compatible with prior service categories (SN, SM, SL, SJ and SH).
- Refer to equipment owner's manual for proper lubricant recommendation.

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Typical Properties for Mystik JT-8 Premium Gasoline Motor Oils:

Material Code	663013002	663012002	663011002
SAE Grade	5W-20	5W-30	10W-30
Gravity, ASTM D4052, °API	32.0	32.4	30.8
Pounds/Gallon at 60°F	7.20	7.19	7.26
Specific Gravity at 60°F	0.865	0.863	0.872
Viscosities:			
at -25°C, cP Max	-	-	5,820
at -30°C, cP Max	6,170	5,360	-
at 40°C, cSt	49.2	60.0	67
at 100°C, cSt	8.3	9.9	10.3
Viscosity Index	144	151	141
Flash Point, ASTM D92, COC, °F (°C)	442 (228)	450 (232)	451 (233)
Pour Point ASTM D97, °F (°C)	-33 (-36)	-38 (-39)	-33 (-36)
Color, ASTM D1500	L3.5	L3.5	L3.5

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Mystik® JT-8® Premium Gasoline Synthetic Motor Oils



OVERVIEW



- Well-balanced combinations of today's highest quality synthetic base stocks, with an advanced additive system that meets stringent automotive specifications.
- Designed to provide excellent protection in today's high-performance gasoline engines (including turbocharged and supercharged) in passenger cars, vans, sport utility vehicles, and light trucks.
- Demonstrate improved performance in today's advanced engine designs, including benefits in industry-accepted fuel economy tests.

FEATURES & BENEFITS



- Meet the performance requirements for the latest gasoline-fueled engine service ILSAC GF-6A/Resource Conserving and API SP.
- Meet the most advanced emissions and fuel economy standards in the US for gasoline engines.
- · Excellent low-temperature starting and pumpability characteristics.
- High-temperature/high-shear properties superior to conventional oils.
- · Lower volatility than conventional oils.
- Enhanced protection against varnish buildup and sludge formation in critical engine parts contributes to top performance and long engine life.
- Extended engine life due to control of wear and deposit formation.
- · Compatible with conventional and synthetic motor oils.

APPLICATIONS



- · Recommended for passenger cars, sport utility vehicles and light trucks operating on gasoline.
- Recommended for use in gasoline engines which have been converted to operate on compressed natural gas (CNG), liquefied natural gas (LNG), and liquefied petroleum gas (LPG, including propane and butane).
- Mystik JT-8 Premium Gasoline Synthetic Motor Oil SAE 0W-20 meets the GM dexos1® Gen2 specification and is recommended for original equipment manufacturers such as Toyota and Honda for some hybrid vehicle applications and a limited number of low-temperature applications.
- Mystik JT-8 Premium Gasoline Synthetic Motor Oil SAE 5W-30 meets the GM dexos1 Gen2 specification and provides excellent performance where GM4718M or GM6094M is referenced.
- Mystik JT-8 Premium Gasoline Synthetic Motor Oils are Approved and Licensed by GM as dexos1 Gen2 oils.
- Mystik JT-8 Premium Gasoline Synthetic Motor Oils are not recommended for use in diesel
 engines in passenger cars, vans or light trucks. Mystik JT-8 SHD Motor Oils are
 recommended for diesel applications.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Typical Properties for Mystik JT-8 Premium Gasoline Synthetic Motor Oils:

Material Code	663032002	663024002	663014002
SAE Grade	0W-20	5W-20	5W-30
Gravity, ASTM D4052, °API	35.0	34.5	34.2
Pounds Per Gallon	7.08	7.10	7.11
Flash Point, ASTM D92, °F (°C), COC	200 (428)	442 (228)	450 (232)
Low Temperature Cranking, ASTM			
D52936 Temperature, °F (°C)	-28 (-35)	-22 (-30)	-22 (-30)
Viscosity, cP	5,190	5,270	4,080
Viscosity, ASTM D445			
cSt at 40°C	46.0	52.0	58.5
cSt at 100°C	8.5	8.7	10.5
Viscosity Index, ASTM D2270	164	145	171
Pour Point ASTM D97, °F (°C)	-33 (-36)	-33 (-36)	-27 (-33)
Color, ASTM D1500	L3.5	L3.5	L3.5
ILSAC GF-6A	Yes	Yes	Yes
API SP	Yes	Yes	Yes
Resource Conserving	Yes	Yes	Yes
GM dexos1 Gen2 Approved	Yes	Yes	Yes

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Mystik® JT-8® Synthetic Blend Super Heavy Duty Engine Oils Monogrades



OVERVIEW



- For hydraulic systems, transmissions, and engines that recommend a monograde engine oil type lubricant.
- Formulated with premium base oils and additives to reduce wear and extend component life.

APPLICATIONS



- · Service Category CF (obsolete).
- · Service Category CF-2 (obsolete).
- Hydraulic systems where engine oils are recommended.

PROPERTIES



Typical Properties for Mystik JT-8 Synthetic Blend Super Heavy Duty Engine Oils Monogrades

Material Code	663006	663007	663008
SAE Grade	30	40	50
Gravity, ASTM D4052, °API	30.0	29.2	27.8
Density, lb/gal	7.30	7.33	7.40
Specific Gravity at 60F	0.876	0.880	0.888
Flash Point, ASTM D92 (COC), °F (°C)	489	486	482
Viscosity, ASTM D445			
cSt at 40°C	93.1	121	206
cSt at 100°C	11.7	13.9	19.5
Viscosity Index, ASTM D2270	116	113	107
CCS Viscosity, ASTM D5293, cP	NR	NR	NR
MRV Pumpability, ASTM D4684, cP	NR	NR	NR
MRV Yield Stress at -25°C, ASTM D4684	NR	NR	NR
Pour Point, ASTM D97, °F (°C)	-33 (-36)	-33 (-36)	-22 (-30)
Color, ASTM D1500	L2.5	L2.5	L3.5
Sulfated Ash, ASTM D874, m%	0.92	0.92	0.92

NR = Requirement

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Mystik® JT-8® Synthetic Blend Super Heavy Duty Engine Oils



OVERVIEW



- Performance engineered with proprietary additive technology to meet the performance demands of newer engine hardware.
- Designed to ensure long-lasting engine durability under the toughest operating conditions.
- For commercial over-the-road fleets, agriculture, construction equipment, buses, automobiles, and other similar diesel-powered applications where a premium quality engine oil is required.

FEATURES & BENEFITS



- Engineered to provide long engine life in challenging service conditions.
- Double the oil durability protection compared to conventional CJ-4 engine oils (always follow OEM recommendations when extending oil drain intervals).
- Maintain viscosity over extended service intervals, even under extreme operating conditions.
- Recommended for low emission Tier 4 and on-highway low emission engines.
- SAE 10W-30 improves fuel economy up to 3% compared to conventional 15W-40 viscosity grade oils.

APPLICATIONS



SAE VISCOSITY GRADE	SAE VISCOSITY GRADE		15W-40
	CK-4	~	~
	CJ-4	~	~
RECOMMENDED	CI-4 PLUS	~	~
FOR:	CI-4	~	~
	CH-4	~	~
	SN	_	~
Caterpillar ECF-3		~	~
Cummins CES 20086		~	~
Detroit Diesel 93K222		~	~
Volvo/Mack/Renault/VDS-4.5/EOS-4.5/RLD-4		~	~
Paccar		~	~
Navistar - International		~	~
Ford WSS-M2C171-F1		~	~

Notes:

- Consult owner's manual for proper SAE viscosity grade and API Service Category.
- Optimum drain intervals can be achieved utilizing oil analysis in conjunction with OEM guidelines.

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API Comparison Chart

•		
Category	Mystik JT-8 API CJ-4	Mystik JT-8 API CK-4
Back serviceable	Yes	Yes
Viscosity grades	15W-40/10W-30	15W-40/10W-30
Fleet million mile engine test rating	Better	Best
100% improved oxidation stability	No	Yes
Greater shear stability vs. conventional API CJ-4	Yes	Yes
Aeration control vs. conventional API CJ-4	Better	Best
SAE 10W-30 sustains improved fuel economy through 50,000 miles	Better	Best
Compatible with conventional API CJ-4 oils	Yes	Yes
Best Overall Performance and Backward compatibility	Better	Best

Typical Properties for Mystik JT-8 Synthetic Blend Super Heavy Duty Engine Oils:

Material Code	625775002	625776002
SAE Grade	10W-30	15W-40
Gravity, ASTM D4052, °API at 60°F	31.5	30.8
Pounds/Gallon at 60°F	7.25	7.30
Specific Gravity at 60°F	0.87	0.88
Viscosity		
at 40°C, cSt	79	112
at 100°C, cSt	11.9	15.2
Viscosity Index	143	141
CCS Viscosity, cP, @ Temperature	5,830 @ -25°C	4370 @ -20°C
MRV Viscosity, cP, @ Temperature	20,000 @ -30°C	15,620 @ -25°C
MRV Yield Stress, Pa, @ Temperature	<35	<35
Pour Point, °F (°C)	-38 (-39)	-33 (-36)
Flash Point, COC, °F (°C)	432 (222)	450 (232)
Noack Evaporative, ASTM D5800, % Loss	11.6	10.7
Color, ASTM D1500	L3.0	L3.5
Total Base Number, ASTM D2896	10	10
Sulfated Ash, ASTM D874, % wt	1.0	1.0

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Mystik® JT-8® Synthetic Blend Super Heavy Duty Engine Oils SAE 10W-40 and SAE 15W-50



OVERVIEW



- SAE 10W-40 provides an improvement in cold-weather start-up lubrication while providing excellent wear protection at higher operating temperatures.
- SAE 15W-50 is designed for the equipment owner operating older equipment with higher hours or miles that can benefit from a higher viscosity grade heavy duty engine oil.

FEATURES & BENEFITS



- Engineered to provide excellent protection for equipment operating in severe conditions.
- Provide extended diesel engine life.

APPLICATIONS



• Commercial over-the-road fleets, construction equipment, buses, and other similar diesel-powered applications where premium quality engine oil is required.

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Typical Properties for Mystik JT-8 Synthetic Blend Super Heavy Duty Engine Oils SAE 10W-40 and SAE 15W-50:

Material Code	663002	663004
SAE Grade	10W-40	15W-50
API Service Category	CK-4	CI-4 Plus
Gravity, ASTM D4052, °API	31.5	30.3
Density, lb/gal	7.23	7.28
Flash Point, ASTM D92 (COC), °F (°C)	442 (228)	440 (227)
Viscosity ASTM D445		
cSt at 40°C	105	151
cSt at 100°C	15.6	19.5
Viscosity Index, ASTM D2270	157	148
CCS Viscosity, ASTM D 5293, cP	5,700 at -25C	6,158 at -20C
MRV Pumpability, ASTM D 4684, cP	39,000 at -30C	26,600 at -25C
MRV Yield Stress at -25°C, ASTM D 4684	<35 at -30C	<35 at -25C
Pour Point, ASTM D97, °F (°C)	-49 (-45)	-42 (-44)
Color, ASTM D1500	L3.5	L3.5
Sulfated Ash, ASTM D874, m%	1.0	1.0

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Mystik® JT-8® Synthetic Engine Oil SAE 5W-40



OVERVIEW



- Full synthetic super heavy duty engine oil, engineered with proprietary additive technology.
- Extra performance for both older and newer engines, with improved engine drain interval capabilities.
- Improved cold-temperature performance.
- For equipment owners who need maximum engine durability, fuel efficiency, extended oil service capability, and superior cold-weather start-up performance.

FEATURES & BENEFITS



- Up to 3% fuel economy advantage over SAE 15W-40 viscosity grade oils.
- Improves cold cranking, extending starter/battery life, reducing dependency on block heaters, and saving energy.
- Double the oil durability protection compared to conventional CJ-4 engine oils (always follow OEM recommendations when extending oil drain intervals).
- Superior lubrication in extreme temperature ranges, compared to conventional SAE 15W-40 viscosity grade oils.

APPLICATIONS



- API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4
- Caterpillar ECF-3
- Cummins CES 20086
- Detroit Diesel DFS 93K222
- Volvo/Mack/Renault VDS-4.5/EOS-4.5/RLD-3
- Paccar
- Navistar
- Ford WSS-M2C171-F1

Category	Mystik JT-8 Synthetic Blend SHD 15W-40 API CJ-4	Mystik JT-8 Synthetic Blend SHD 10W-30 API CK-4	Mystik JT-8 Synthetic Blend SHD 15W-40 API CK-4	Mystik JT-8 Synthetic 5W-40 API CK-4
Back Serviceable	Yes	Yes	Yes	Yes
Oxidation Stability	~	VV	V V	V V V
Shear Stability	V	VV	V V	VV
Aeration Control	~	V V	V V	V V V
Wear Control	~	VV	V V	V V V
Fuel Efficiency	~	VV	V	VV
Low Tempurature Start-up	~	V V	~	V V V
Compatible with API CJ-4 Oil	Yes	Yes	Yes	Yes

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Typical Properties for Mystik JT-8 Synthetic Engine Oil SAE 5W-40:

Material Code	663033002
SAE Grade	5W-40
Gravity, ASTM D4052, °API	34.0
Pounds Per Gallon	7.14
Flash Point, COC, ASTM D92, °F (°C)	450 (232)
Viscosity ASTM D445	
cSt at 40°C	87
cSt at 100°C	14
Viscosity Index, ASTM D2270	166
CCS Vis, ASTM D5293, cP at °C	6,260 at -30°C
MRV Vis, ASTM D4684, cP at °C	30,054 at -35°C
MRV Yield Stress, ASTM D4684, Pa at °C	<35
Pour Point ASTM D97, °F (°C)	-44 (-42)
TBN (Total Base No.), ASTM D2896	11
Color, ASTM D1500	L5.5

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Mystik® JT-4® 2-Cycle Lawn and Garden Engine Oil



OVERVIEW



- Premium performance synthetic-blend lubricant designed for use in high-performance, air-cooled
 2-cycle generators, chainsaws, lawnmowers, snow blowers, leaf blowers, and trimmers.
- Premium base oils and a synthetic low-ash additive package provide excellent lubricity and detergency
 performance, surpassing standards for preventing piston and combustion chamber deposits.

FEATURES & BENEFITS



- Low smoke and advanced protection for air-cooled, 2-cycle engines.
- Protects against exhaust port blocking, combustion chamber and piston deposits, ring sticking and scuffing, and wear.
- · Prevents piston seizure and cylinder scuffing.
- Mixes readily with fuel for pre-mix type, even at low temperatures.

APPLICATIONS



- Meets or exceeds API TC, JASO FD, FC and ISO-L-EGD requirements for 2-cycle air-cooled engine oils (JASO FD certification number: 001 MYS 091).
- Exceeds performance requirements for JASO FC, JASO FB, ISO-L-EGC, and -EGB.
- Can be used in either pre-mix or oil injection systems up to 50:1 fuel to oil ratios.
- Can be used in 2-cycle generators, chainsaws, lawnmowers, snow blowers, leaf blowers, and trimmers operating in hot, dirty, dusty environments and high loads for extended periods.
- Do not use in engines requiring an NMMA TC-W3®, TC-WII®, or TC-W® product.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Typical Properties for Mystik JT-4 2-Cycle Lawn And Garden Engine Oil:

Material Code	663091002
Gravity, ASTM D4052, °API	32.0
Density, lb/gal, at 60°F	7.21
Flash Point, PMCC, ASTM D93, °F (°C)	185 (85)
Flash Point, COC, ASTM D92, °F (°C)	203 (95)
Viscosity, ASTM D445, cSt at 40°C	55
cSt at 100°C	8.5
ASTM D2161, SUS at 100°F	281
SUS at 210°F	54.8
Viscosity Index, ASTM D2270	129
Pour Point, ASTM D97, °F (°C)	-49 (-45)
Apprearance, Color	Purple
Sulfated Ash, ASTM D874, %	0.13
Total Base Number, ASTM D2896, mg KOH/g	2.2

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Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com

Mystik® JT-4® 2-Cycle Premium Outboard Engine Oil



OVERVIEW



 An ashless 2-cycle engine oil designed for carburated 2-cycle marine engines requiring NMMA TC-W3 oil. Guaranteed to protect marine OEM warranties.

FEATURES & BENEFITS



- · Designed for premix-type outboard engines.
- Helps reduce piston ring sticking and scuffing.
- · Readily mixes with gasoline.

APPLICATIONS



- Recommended for water-cooled or liquid-cooled 2-cycle engines requiring an NMMA TC-W3®, TC-WII® or TC-W® type oil.
- May be used in many air-cooled 2-cycle engine applications requiring TC-W3 or API Service Category TC.
- · Recommended for premix systems.
- Provides protection for gasoline-fueled 2-cycle engines when used at the primary dilution recommended by the original equipment manufacturer.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Typical Properties for Mystik JT-4 2-Cycle Premium Outboard Engine Oil:



Material Code	663088002
Gravity, ASTM D4052, °API	31.5
Density, lb/gal at 60°F	7.23
Flash Point, PMCC, ASTM D93, °F (°C)	178 (81)¹
Flash Point, COC, ASTM D92, °F (°C)	197 (92)
Viscosity, ASTM D445	
cSt at 40°C	32
cSt at 100°C	5.9
Viscosity, ASTM D2161	
SUS at 100°C	163
SUS at 210°C	46
Viscosity Index, ASTM D2270	130
Pour Point, ASTM D97, °F (°C)	-28 (-39)
Appearance, Color	Blue/Green
Sulfated Ash, ASTM D874, %	<0.004
Total Base Number, ASTM D2896, mg KOH/g	8.6

NOTE

(1) DOT Combustible Liquid

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Mystik® JT-4® 2-Cycle Premium Plus Outboard Engine Oil



OVERVIEW



- A synthetic blend formula that provides superb OEM level protection for high performance, high horsepower, 2-cycle outboard marine engines.
- Provides high-temperature oxidation resistance, corrosion protection, superior engine cleanliness, enhanced lubricity for longer engine life, and is guaranteed to protect marine OEM warranties.
- · Combats wear, scuffing and deposit problems.

FEATURES & BENEFITS



- Significantly reduces deposit build-up on engine parts and piston ring sticking.
- For direct injection or premix; mixes readily at low temperatures.
- High film strength for improved lubricity, resulting in increased engine efficiency, excellent scuffing and wear protection, and cleaner, better-running engines producing less smoke.

APPLICATIONS



- Recommended for all water-cooled or liquid-cooled 2-cycle engines requiring NMMA TC-W3®, TC-WII® or TC-W® type oil.
- May be used in many air-cooled 2-cycle engine applications requiring TC-W3® or API Service Category TC.
- · Recommended for both direct injected and premix systems.
- Provides outstanding protection for gasoline-fueled 2-cycle engines when used at the primary dilution recommended by the original equipment manufacturer.
- Refer to equipment owner's manual for proper lubricant recommendation.

DO NOT USE IN 4-CYCLE ENGINES!

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Typical Properties for Mystik JT-4 2-Cycle Premium Plus Outboard Engine Oil:

Material Code	663084002
Gravity, ASTM D287, °API	31.8
Density, lb/gal at 60°F	7.215
Flash Point, PMCC, ASTM D93, °F (°C)	144 (62)1
Flash Point, COC, ASTM D92, °F (°C)	185 (85)
Viscosity, ASTM D445	
cSt at 40°C	31
cSt at 100°C	6.0
Viscosity, ASTM D2161	
SUS at 100°C	159
SUS at 210°C	47
Viscosity Index, ASTM D2270	145
Pour Point, ASTM D97, °F (°C)	-54 (-48)
Appearance, Color	Green
Sulfated Ash, ASTM D874, %	0.04
Total Base Number, ASTM D2896, mg KOH/g	9.7

NOTE

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Mystik[®] JT-4[®] All-In-One 2-Cycle Outboard Engine Oil



OVERVIEW



- A unique, ultra-premium, licensed NMMA TC-W3® 2-cycle oil with a fuel stabilizer, ethanol
 treatment, and engine cleaner that guarantees to protect marine and other engines through their OEM
 warranty period and beyond.
- A superior product that helps prevent the adverse effects that ethanol fuel can have on marine
 engines. Cleans up deposits left from other 2-cycle products and can be used with new engines
 to ensure trouble-free operation, to maintain engines at the start or end of a season, and to help
 bring old engines back to life.
- Can be used in all 2-cycle engines.

FEATURES & BENEFITS



- · Contains fuel stabilizer.
- · Contains ethanol fuel treatment.
- Contains a high ester content and powerful detergents to remove existing carbon deposits from engine parts.
- Ashless chemistry.
- Provides outstanding protection for gasoline fueled 2-cycle engines when used at the primary dilution recommended by the original equipment manufacturer up to 100:1.

APPLICATIONS



- Recommended for use in all air-cooled, water or other liquid-cooled 2-cycle engines requiring TC-W3, JASO FD, or API TC engine oils.
- Marine: outboard engines, personal watercraft (PWC).
- · Recreation equipment: ATVs, snowmobiles, motorcycles, dirt bikes.
- Other power equipment: chain saws, chippers/shredders, log splitters, snow blowers, generators.
- Lawn and garden: push mowers, lawn tractors, leaf blowers/vacuums, edgers, trimmers, tillers.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Typical Properties for Mystik JT-4 All-In-One 2-Cycle Outboard Engine Oil:

Material Code	663099002
Gravity, ASTM D287, °API	26.2
Density, lbs/gal at 60°F	7.47
Flash Point, PMCC, ASTM D93, °F (°C)	176 (80) ¹
Pour Point, ASTM D97, °F (°C)	-60 (-51)
Viscosity, ASTM D445, cSt at 40°C	62
cSt at 100°C	9.8
ASTM D2161, SUS at 100°F	317
SUS at 210°F	59.5
Viscosity Index, ASTM D2270	143
Sulfated Ash, ASTM D874, m%	0.001
Color	Purple

NOTE

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Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com

Mystik[®] JT-4[®] Sea & Snow[®] 2-Cycle Engine Oil



OVERVIEW



- An advanced synthetic-blend, low-smoke oil designed for use in high-performance, air- or liquid-cooled 2-cycle engines in personal watercraft and snowmobiles.
- Premium base oils and a synthetic low-ash additive package provide excellent lubricity and detergency
 performance, surpassing standards for preventing piston and combustion chamber deposits.

FEATURES & BENEFITS



- Low smoke and advanced protection for air-cooled, 2-cycle engines.
- Protects against exhaust port blocking, combustion chamber and piston deposits, ring sticking and scuffing, and wear.
- · Prevents piston seizure and cylinder scuffing.
- · Mixes readily with fuel for premix type, even at low temperatures.

APPLICATIONS



- Formulated primarily for use in snowmobiles and personal watercraft.
- Meets or exceeds API TC, JASO FD, and ISO-L-EGD requirements for air-cooled 2-cycle engine oils (JASO FD certification number: 001 MYS 075).
- Exceeds performance requirements for JASO FC, JASO FB, ISO-L-EGC, and -EGB.
- Can be used in either premix or oil injection systems up to 50:1 fuel to oil ratios.
- May be used in certain liquid-cooled 2-cycle motorcycle engines.
- Can be used in 2-cycle generators, lawnmowers, and hand held power equipment such as leaf blowers, trimmers, and chainsaws.
- Do not use in engines requiring an NMMA TC-W3®, TC-WII®, or TC-W® product.
- Refer to equipment owner's manual for proper lubricant recommendation.

DO NOT USE IN 4-CYCLE ENGINES!

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Typical Properties for Mystik JT-4 Sea & Snow 2-Cycle Engine Oil:

Material Code	663092002
Gravity, ASTM D4052, °API	32.0
Density, lb/gal at 60°F	7.21
Flash Point, PMCC, ASTM D93, °F (°C)	185 (85)
Flash Point, COC, ASTM D92, °F (°C)	203 (95)
Viscosity, ASTM D445	
cSt at 40°C	55
cSt at 100°C	8.5
Viscosity, ASTM D2161	
SUS at 100°C	281
SUS at 210°C	54.8
Viscosity Index, ASTM D2270	129
Pour Point, ASTM D97, °F (°C)	-49 (-45)
Appearance, Color	Purple
Sulfated Ash, ASTM D874, %	0.01
Total Base Number, ASTM D2896, mg KOH/g	2.2

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Mystik® JT-4® Synthetic 2-Cycle Personal Watercraft Engine Oil



OVERVIEW



- Premium synthetic base oils, combined with a special synthetic additive system designed for personal watercraft engines, provide superior high-temperature oxidation stability, wear protection, and fuel economy.
- Unique tri-blend of synthetic components provides ideal high-temperature performance and quick starts in all temperatures.

FEATURES & BENEFITS



- Provides the best protection against engine wear, rust, and corrosion, ensuring engine cleanliness and promoting longer engine life.
- · Superior protection in high temperatures.
- Improves equipment performance and reliability.

APPLICATIONS



- For use in all air-cooled or liquid-cooled 2-cycle (injector or pre-mix) personal watercraft engines including those manufactured by Sea Doo, Kawasaki, Polaris, Yamaha, and other original equipment manufacturers.
- Advanced formula far exceeds personal watercraft engine requirements for API TC and JASO FC quality oil.
- Ideal for engines operating in high temperatures and where performance demands the most from your oil.
- Refer to equipment owner's manual for proper lubricant recommendation.

DO NOT USE IN OUTBOARD MARINE ENGINES!

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Typical Properties for Mystik JT-4 Synthetic 2-Cycle Personal Watercraft Engine Oil:

Material Code	663076002
Gravity, ASTM D237, °API	32.9
Density, lb/gal	7.17
Flash Point, PMCC, ASTM D93, °F (°C)	194 (90)
Flash Point, ASTM D92, COC, °F (°C)	230 (110)
Pour Point, ASTM D97, °F (°C)	-54 (-48)
Viscosity, ASTM D445	
cSt at 40°C	54
cSt at 100°C	9.2
Viscosity Index, ASTM D2270	152
Visual Color	Purple
Sulfated Ash, ASTM D874, m%	0.015
TBN, ASTM D2896, mg KOH/g	4.3

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Mystik[®] JT-4[®] Synthetic 2-Cycle Snowmobile Engine Oil



OVERVIEW



- Premium synthetic base oils, combined with a special synthetic additive system designed for use in snowmobile engines, provide superior cold-temperature protection and quick starts in extreme cold.
- Unique tri-blend of synthetic components provides ideal low-temperature performance and quick starts in extreme cold.
- This balance of synthetic components enhances fuel economy, improves cold-temperature
 performance and high temperature thermal stability.

FEATURES & BENEFITS



- Provides excellent protection against engine wear, rust, and corrosion, ensuring engine cleanliness and promoting longer engine life.
- Superior protection in temperature extremes.
- Pumps well in cold weather to reduce wear and increase power.
- Improves equipment performance and reliability.
- · Cleans power valves for improved throttle response.

APPLICATIONS



- For use in all air-cooled or liquid-cooled 2-cycle (injector or pre-mix) snowmobile engines including those manufactured by Arctic Cat, Ski Doo, Polaris, Yamaha, and other original equipment manufacturers.
- Recommended for use in 2-cycle snowmobile engine applications requiring API TC and JASO FC oil.
- Ideal for engines operating in extreme cold temperatures and where performance demands the most from your oil.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Typical Properties for Mystik JT-4 SYNTHETIC 2-CYCLE SNOWMOBILE ENGINE OIL:

Material Code	663077002
Gravity, ASTM D287, °API	32.9
Density, lb/gal	7.17
Flash Point, PMCC, ASTM D93, °F (°C)	194 (90)
Flash Point, ASTM D92, COC, °F (°C)	203 (110)
Pour Point, ASTM D97, °F (°C)	-54 (-48)
Viscosity, ASTM D445	
cSt at 40°C	54
cSt at 100°C	9.2
Viscosity Index, ASTM D2270	152
Visual Color	Purple
Sulfated Ash, ASTM D874, m%	0.015
TBN, ASTM D2896, mg KOH/g	4.3

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Mystik® JT-4® 4-Cycle Marine Engine Oils



OVERVIEW



- Carefully crafted formulations designed to provide maximum protection under the most demanding marine conditions.
- Specially formulated, proven, and certified for use in 4-cycle marine inboard, outboard, and personal watercraft engines.

FEATURES & BENEFITS



- Formulated to meet the warranty requirements of Mercury, Yamaha, Evinrude, and other leading OEMs.
- Formulated to meet the demanding requirements of 4-cycle marine engines requiring NMMA FC-W Catalyst Compatible® oils.
- Provide superior rust and corrosion protection in high-performance marine engines under the harshest of marine environments.
- · Outstanding scuff and wear protection.
- · Ensure maximum engine cleanliness.
- Full synthetic and synthetic blend formulations.
- Multiple viscosity grades for comprehensive category coverage.

APPLICATIONS



- For use in 4-cycle marine inboard, outboard and personal watercraft engines.
- Recommended in applications requiring NMMA FC-W Catalyst Compatible.
- Meet warranty requirements of Mercury, Yamaha, Evinrude and other leading OEMs.
- Mystik JT-4 4-Cycle Full Synthetic 10W-40 provides excellent protection for personal watercraft and meets warranty requirements of Honda, Kawasaki, Polaris, Sea Doo, and other original equipment.
- Refer to equipment owner's manual for proper lubricant recommendation.

NOT FOR USE IN 2-CYCLE OR DIESEL ENGINES.

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Typical Properties for Mystik JT-4 4-Cycle Marine Engine Oils:

Material Code	663094002	663093002	663095002
SAE Grade	10W-30 Full Synthetic	10W-40 Full Synthetic	25W-40 Syn Blend
Gravity, ASTM D287, °API	32.0	31.9	28.3
Density, lbs/gal	7.21	7.21	7.37
Flash Point, ASTM D92, COC °F (°C)	437 (225)	453 (234)	455 (235)
Pour Point, ASTM D97, °F (°C)	-27 (-33)	-22 (-30)	-6 (-21)
Viscosity, ASTM D445			
cSt at 40°C	80.5	98.4	149
cSt at 100°C	12.4	14.9	15.9
Viscosity Index, ASTM D2270	151	158	114
CCS Viscosity			
cP at -25°C , ASTM D5293	5900	5660	_
cP at -10°C , ASTM D5293	_	_	6100
NOACK Volatility, ATM D5800, % Loss	7.2	9	4.5
Color, ASTM D1500	2.5	2.5	4.0
Sulfated Ash, ASTM D874, m%	1.1	1.1	1.1
TBN, ASTM D2896, mg KOH/g	9.3	9.2	9.0

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Mystik® JT-4® Synthetic 4-Cycle Snowmobile Motor Oil SAE 0W-40



OVERVIEW



- Premium synthetic base oils, combined with a special synthetic additive system designed for use in snowmobile engines, provide superior cold-temperature protection and quick starts in extreme cold.
- Synthetic components provide optimum-low temperature performance while minimizing volatility, enhancing fuel economy, and improving cold-temperature performance and high-temperature thermal stability.

FEATURES & BENEFITS



- Provides the best protection against engine wear, rust, and corrosion, ensuring engine cleanliness and promoting longer engine life.
- Superior protection in cold temperatures.
- Permits quick-fill lubrication flow during cold-weather start-up to help reduce wear.
- · Maintains equipment performance and reliability.

APPLICATIONS



- For use in 4-cycle snowmobiles including those manufactures by Arctic Cat, Polaris, Ski-Doo, Yamaha, and other original equipment manufacturers.
- Advanced formula used in Mystik JT-4 Synthetic 4-Cycle Snowmobile Motor Oil SAE 0W-40 far exceeds snowmobile engine requirements for an API SL, JASO MA and NMMA FC-W quality oil.
- Ideal for engines operating in extreme cold weather and where performance demands the most from your oil.
- · Refer to equipment owner's manual for proper lubricant recommendation.

DO NOT USE IN 2-CYCLE ENGINES!

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Typical Properties for Mystik JT-4 Synthetic 4-Cycle Snowmobile Motor Oil, SAE 0W-40:

Material Code	663081002
Gravity, ASTM D237, °API	33.8
Density, lb/gal	7.13
Flash Point, ASTM D92, COC, °F (°C)	428 (220)
Pour Point, ASTM D97, °F (°C)	-56 (-51)
Viscosity ASTM D445	
cSt at 40°C	93
cSt at 100°C	14.8
Viscosity Index, ASTM D2270	166
CCS Viscosity, cP (°C), ASTM D5293	6000 (-35)
NOACK Volatility, ASTM D5800, % Loss	7
Color, ASTM D1500	2.5
Sulfated Ash, ASTM D874, m%	0.9
TBN, ASTM D2896, mg KOH/g	9.5

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Mystik® JT-4® Synthetic 4-Cycle All-Terrain Vehicle Motor Oils



OVERVIEW



- Premium synthetic base oils, combined with a special additive system designed for all-terrain vehicle (ATV) and utility vehicle (UTV) engines, provide outstanding protection.
- Full-synthetic formulas provide optimum high- and low-temperature performance, minimize volatility, enhance fuel economy, and improve cold-temperature performance and high-temperature thermal and oxidation stability.

FEATURES & BENEFITS



- Superior protection against engine wear, rust, and corrosion, ensuring engine cleanliness and promoting longer engine life.
- Extra protection for gasoline-powered ATV and UTV engines requiring a JASO MA quality oil.
- · Protect in extreme hot and cold temperatures, with excellent thermal and oxidation stability.
- · Permit lubrication flow during cold weather start-up.
- · Maintain equipment performance and reliability.
- Excellent rust protection for wet riding environments.

APPLICATIONS



- For use in 4-cycle, gasoline-powered ATV and UTV engines, including those manufactured by Arctic Cat, Bombardier, Honda, Kawasaki, Polaris (including 1000 ProStar), Yamaha, and other original equipment manufacturers.
- Recommended for use in 4-cycle gasoline powered ATV and UTV engine applications requiring a JASO MA quality oil.
- Designed to be used in wet clutch applications that require JASO MA quality oil.
- Ideal for high-performance engines operating in extreme low and high temperatures and where
 performance demands the most from your oil.
- Select the SAE 0W-40 grade if frequent usage at low temperatures is expected.
- · Refer to equipment owner's manual for proper lubricant recommendation.

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Typical Properties for Mystik JT-4 Synthetic 4-Cycle All-Terrain Vehicle Motor Oils:

Material Code	663079002	663080002
SAE Grade	0W-40	10W-40
Gravity, ASTM D237, °API	33.8	31.9
Density, lb/gal	7.13	7.21
Flash Point, ASTM D92, COC, °F (°C)	428 (220)	453 (234)
Pour Point, ASTM D97, °F (°C)	-56 (-51)	-22 (-30)
Viscosity, ASTM D445		
cSt at 40°C	93	98.4
cSt at 100°C	14.8	14.9
Viscosity Index, ASTM D2270	166	158
CCS Viscosity, cP (°C), ASTM D5293	6000 (-35)	5660 (-25)
NOACK Volatility, ASTM D5800, % Loss	7.0	9.0
Color, ASTM D1500	2.5	2.5
Sulfated Ash, ASTM D874, m%	0.9	1.0
TBN, ASTM D2896, mg KOH/g	9.5	9.2

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Mystik[®] JT-4[®] Premium High Performance Lower Unit Gear Lubricant



OVERVIEW



 Formulated specifically for the marine industry, with the latest generation of a proprietary EP additive system designed to provide maximum protection against wear, rust, corrosion, and deposits.

FEATURES & BENEFITS



- An improved gear lubricant, specifically designed for boating applications, offering top-level protection, surpassing other marine gear lubricants using GL-4 and GL-5 80W-90 technology.
- Superior EP lubrication and corrosion protection in the presence of moisture (fresh and sea water).
- Improved gear protection for shock load conditions encountered with harsh startup engagement, power reversal, and propeller entanglement.

APPLICATIONS



- Recommended for use in all outboard and stern drive gear units specifying SAE 90, 80W-90, or 85W-90, including OMC Type 'C.' Includes MerCruiser, OMC Cobra, and Volvo stern drives and Mercury, Evinrude, Johnson, Mariner, Yamaha, Suzuki, and Force outboards.
- Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES



Typical Properties for Mystik JT-4 Premium High Performance Lower Unit Gear Lubricant:

SAE GRADE	80W-90
Material Code	663090002
Gravity, ASTM D4052, °API	27.2
Density, lb/gal AT 60°F	7.43
Flash Point, ASTM D92, COC, °F (°C)	367 (186)
Viscosity, cSt at 100°C, ASTM D445	16.0
Brookfield Viscosity, -26°C, cP, ASTM D2983	105,600
Pour Point, ASTM D97, °F (°C)	-28 (-33)
Channel Point, °F (°C), Max	-31 (-35)
Color, Visual	Blue
Foram Test, ASTM D892	Pass
Copper Corrosion, 3 hrs at 250°F, ASTM D130	1A

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Manufactured in USA

Mystik® JT-7® Multi-Purpose Gear Lubricants



OVERVIEW



 Multi-purpose, thermally stable, sulfur-phosphorus extreme pressure (EP) gear lubricants that exceed the performance requirements of the latest axle and non-synchronized manual transmissions.

FEATURES & BENEFITS



- Provide superior EP protection, minimum gear wear, excellent deposit control, and improved rust and corrosion protection under extreme service conditions.
- Superior service in differentials of passenger cars, trucks, and heavy duty equipment.
- Multiple viscosity grades, with high viscosity index. Wide temperature range for all-season application in most climates.
- Outstanding thermal stability and durability provide longer life at higher operating temperatures than
 most competitive conventional gear lubricants.
- EP additive provides superior protection against wear and scuffing.

APPLICATIONS



- Top quality, versatile hypoid EP gear lubricants; recommended in applications that specify API Gear Service GL-4, GL-5 and MT-1 and SAE J2360.
- Recommended for all automotive and heavy duty axle service including break-in, add-to or make-up, drain and refill, and for limited slip axles.
- Excellent in limited slip differentials known as Sure-grip®, Posi-trac®, Trac-lock®, etc., for complete fill or for top-off.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Manufactured in USA

Automotive Gear Ulis

PROPERTIES



Typical Properties for Mystik JT-7 Multi-Purpose Gear Lubricants:

Material Code	663705002	663706002
SAE Grade	80W-90	85W-140
AGMA Lubricant Number	4 EP	7 EP
Gravity, ASTM D4052, °API	26.5	25.2
Density, lb/gal at 60°F	7.45	7.53
Specific Gravity at 60°F	0.895	0.90
Viscosities:		
at -12°C, cP	_	55,000
at -26°C, cP	90,000	_
at 40°C, cSt	146	347
at 100°C, cSt	16.2	28.0
at 100°F, cSt (SUS)	172 (797)	514 (2380)
at 210°F, cSt (SUS)	17.4 (87.5)	33.6 (159)
Viscosity Index	122	108
Flash Point, ASTM D92, COC, °F (°C)	403 (206)	438 (226)
Pour Point, ASTM D97, °F (°C)	-27 (-33)	0 (-18)
Color	Red	Red

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Mystik® JT-7® Extended Range Full Synthetic Gear Lubricants



OVERVIEW



- Full synthetic gear lubricants with a high-performance additive system provide energy efficiency benefits and excellent protection in heavy duty service and over wide temperature ranges.
- Saves energy by decreasing friction over an extreme range of operating conditions.
- Available in SAE 75W-90 and 75W-140 viscosity grades.

FEATURES & BENEFITS



- Recommended for API Gear Service GL-4 and GL-5.
- API Service MT-1 performance for use in non-synchronized manual transmissions used in buses and heavy-duty trucks.
- Engineered with synthetic base lubricants and advanced shear stable and thermally stable additive system to achieve energy efficiency and improve performance.
- Improved fuel economy in heavy duty applications due to reduced friction and minimal lubricant drag.
 Energy savings can also be obtained in industrial applications.
- Superior oxidation resistance for extended drain intervals; 500,000 mile service capability.
- Excellent extreme pressure (EP) protection to reduce wear and scuffing even under the most severe service conditions.
- Outstanding oxidation resistance and thermal stability to resist deposit formation better than
 conventional gear oils.
- High viscosity index and low pour point provide improved flow and lubrication at extreme temperature ranges, while shear-stable viscosity modifier ensures viscosity stays in grade.
- · Effective rust and foam inhibitors protect bearings and gears.
- · Keeps gears clean and seals effective.
- Compatible with conventional and synthetic oils and materials designed for use with either type of oil.
- Usually eliminates any need for a seasonal oil change, reducing the number of viscosity grades
 required in inventory and minimizing the chance of misapplication.

APPLICATIONS



- Recommended for use in heavy duty transmissions, axles and other gear boxes where API GL-4, GL-5, and/or MT-1 are specified. Also recommended where SAE J2360 (formerly MIL-PRF-2105E) and Mack GO-J Plus are specified.
- Service fill lubricant for limited slip axles.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Automotive Gear Ulis

PROPERTIES



Typical Properties for Mystik JT-7 Extended Range Full Synthetic Gear Lubricants:

Material Code	663745002	663744002
SAE Grade	75W-90	75W-140
Gravity, ASTM D4052, °API	33.5	31
Density, lb/gal at 60°F	7.3	7.2
Specific Gravity at 60°F	0.88	0.87
Viscosities:		
at -26°C, cP	17,000	16,500
at -40°C, cP	123,000	114,200
at 40°C, cSt	100	180
at 100°F, cSt (SUS)	15.3	25.8
Viscosity Index	164	179
Flash Point, ASTM D92, COC, °F (°C)	387 (197)	370 (188)
Pour Point, ASTM D97, °F (°C)	-44 (-42)	-42 (-41)
Color, ASTM D1500	1.0	2.0

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Mystik® SX-7000® Synthetic Gear Lubricants



OVERVIEW



- Heavy duty, state-of-the-art premium synthetic lubricants approved by the Eaton/Fuller Corporation and Rockwell for use in conjunction with their extended warranty programs.
- With up to 500,000 miles of useful life, these premium quality lubricants save the cost and
 inconvenience of frequent transmission and drive axle lube changes. That's ten times longer
 service in transmissions (50,000 miles normal) and two and a half times longer service in
 drive axles (100,000 miles normal) than using conventional petroleum-based lubricants.
- Exceptional proven service in Spicer/Dana transmissions and differentials.
- More horsepower and improved fuel mileage can be achieved as a result of superior lubricating properties.

FEATURES & BENEFITS



- Meet API Service MT-1 performance requirements for use in non-synchronized manual transmissions
 used in buses and heavy-duty trucks.
- Superior performance at extreme temperatures and maximum component protection for the extended long haul.
- High- and low-temperature performance and long-term thermal, oxidation, and shear stability
 (resistance to viscosity loss in service) far superior to conventional transmission and drive axle lubricants.
- Improved lubrication at start-up, easier shifting and less gear wear in low temperature environments.
- All-climate, year-round performance, including superior low-temperature performance with extremely low channel points.
- Improved component protection to reduce wear.
- Longer drive axle and lubricant life.
- Extended seal life.
- · Good foam control and excellent demulsibility.
- · Improved fuel economy and horsepower.

APPLICATIONS



Product Name

Use

SX-7000 75W-90 SX-7000 80W-140 Synthetic SAE 75W-90 Synthetic SAE 80W-140

Description

EP-Drive Axle/Transmission
EP Drive Axle

Mystik SX-7000 Synthetic Gear Lubricants 75W-90 and 80W-140:

- API GL-5.
- Specially formulated for extended drain and severe service in heavy duty drive axles.

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Automotive Gear Oils

APPLICATIONS



NOTE: Mystik SX-7000 75W-90 and 80W-140 meet or exceed all applicable performance requirements for API Gear Lubricant Classification GL-5 and MT-1.

- SAE J2360
- Dana SHAES 429
- Detroit Diesel DFS 93K219.01 (75W-90)
- Dana SHAES 256revE (75W-90)
- Navistar MPAPS B-6821
- Meritor O-76N (75W-90), O-76B (80W-140)
- Mack GO-J (80W-140)
- Mack GO-J Plus (75W-90)
- International TMS-6816

PROPERTIES

Typical Properties for Mystik SX-7000 Synthetic Gear Lubricants:



Material Code	663750002	663751002
SAE Viscosity Grade (J306-8)	75W-90	80W-140
AGMA Grade (ASTM D2422)	4 EP	5-6 EP
Gravity, ASTM D4052, °API	33.5	32.0
Specific Gravity at 60°F	0.91	0.92
Density, lb/gal at 60°F	7.15	7.25
Viscosities:		
at -26°C, cP	_	90,000
at -40°C, cP	125,000	_
at 40°C, cSt.	120	310
at 100°C, cSt.	15.9	31.2
Viscosity Index	140	139
Pour Point, ASTM D97, °F (°C)	-48 (-54)	-33 (-36)
Channel Point, FTMS 3456, °F (°C)	-60 (-51)	-55 (-48)
Flash Point, ASTM D92, °F (°C)	400 (205)	410 (210)
Foam Test, ASTM D892, Sequence I, II, III	Pass	Pass
Copper Strip Corrosion, ASTM D130 3 hrs. at 250°F	Pass	Pass
Thermal Stability Test	Pass	Pass
Demulsibility Test	Pass	Pass
Timken OK Load, ASTM D2782, lb	50	85
Four-Ball EP Weld Point, ASTM D2783, kgf	_	400
Four-Ball Load Wear Index, ASTM D2783, kgf	_	63.8
Color	1.5	1.5

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Mystik® SX-7000® Synthetic MTF



OVERVIEW



- Heavy duty, state-of-the-art premium synthetic lubricant approved for Eaton PS-386 and designed to
 provide optimum performance in Eaton transmissions such as Ultrashift® PLUS, Fuller Advantage®,
 FR and RT Series transmissions.
- With up to 750,000 miles of useful life*, this premium quality lubricant saves the cost and
 inconvenience of frequent transmission fluid changes. It is formulated for fuel efficiency, extended
 drain intervals and severe service in heavy duty commercial vehicle transmissions which requires a
 non-EP transmission lubricant.
- Replaces and is fully compatible with obsolete Eaton PS-164 Rev 7 (SAE 50) transmission fluid and is for use where PS-164 Rev 7 transmission fluid was recommended.

FEATURES & BENEFITS



- Meets API Service MT-1 performance requirements for use in non-synchronized manual transmissions
 used in buses and heavy-duty trucks.
- Formulated to provide up to 1.5 percent fuel economy improvement.*
- High- and low-temperature performance and long-term thermal, oxidation, and shear stability.
- Improved lubrication at start-up, easier shifting and less gear wear in low temperature environments.
- Provides friction retention and durability to ensure smooth transmission operations throughout the extended drain interval.
- · Excellent gear and bearing protection.
- · Formulated to reduce sump operating temperatures.

APPLICATIONS



- Mystik SX-7000 Synthetic MTF is approved for use in the following applications:
- API MT-1
- Eaton Transmissions (Eaton PS-386)
- Mack Transmissions (Mack TO-A Plus)
- MeritorTransferCases (O-81)
- Navistar MPAPS B-6816 Type II

Also recommended for: Eaton Fuller Transmissions, Volvo I-Shift Transmissions, Mack mDrive Transmissions, API GL-4 (transmissions), Allison TES-439, Paccar Transmissions, International TMS 6816 (obsolete), ZF Freedomline (AS-Tronic) Transmissions, Meritor Transmissions (O-81) and Con Met Wheel Ends/Hubs.

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^{*}Consult owner's manual for proper lubricant selection and drain interval

^{*}Compared to SAE 50 transmission fluid

PROPERTIES



Typical Properties for Mystik SX-7000 Synthetic MTF:

Material Code	663513002
SAE Viscosity Grade (J306)	75W-90
SAE Viscosity Grade (J300)	SAE 40
Gravity, ASTM D4052, °API	35
Specific Gravity at 60°F	0.85
Density, lb/gal at 60°F	7.09
Viscosities:	
ASTMD2983,at -40°C, cP	52,000
ASTMD445, at 40°C, cSt.	95
ASTMD445, at 100°C, cSt.	14.8
Viscosity Index	163
Pour Point ASTM D97, °F (°C)	-44 (-42)
Flash Point, ASTM D92, °F (°C)	460 (238)
Copper Strip Corrosion, ASTM D130, 3 hrs. at 121°C	1A
Color, ASTM D1500	L2.5

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Mystik® Gear Lubricant SAE 90



OVERVIEW



- A sulfur-phosphorus (SP type), extreme pressure (EP) gear lubricant that provides antiwear and antiscuff lubricity.
- For gears subject to shock loading in service and for those gear set types requiring EP additive compounding due to their design characteristics.

FEATURES & BENEFITS



- API Service Classification GL-4.
- May be used for 'top-off' in automotive axles requiring a hypoid EP lube.
- Economically satisfies industrial applications where large loss due to leakage is a factor.

APPLICATIONS



- For use where a GL-4 gear lube is required.
- Recommended for gears subject to shock loading in service and gear sets requiring EP additive compounding.
- May be added to automotive axles requiring a hypoid EP lube.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik Gear Lubricant SAE 90:

Material Code	663775002
SAE Grade	90
AGMA Lubricant Number	4 EP
Gravity, ASTM D4052, °API	22.9
Density, lb/gal at 60°F	7.6
Specific Gravity at 60°F	0.917
Viscosities:	
at 40°C, cSt	237
at 100°C, cSt	16.5
at 100°F, cSt (SUS)	275 (1273)
at 210°F, cSt (SUS)	17.1 (86.1)
Viscosity Index	64
Flash Point, ASTM D92, COC, °F (°C)	430 (221)
Pour Point, ASTM D97, °F (°C)	-20 (-29)
Color	3.0

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Mystik® JT-5® Synthetic Blend TFX Tractor Trans-Hydraulic Fluid



OVERVIEW



- A performance-engineered tractor fluid for the equipment owner needing longer component life, ensuring optimum efficiency for many years of tillage and harvesting operations.
- The investment in today's farm tractors often requires longer ownership of 10 years or more while
 operating at lowest possible maintenance cost.
- Achieving maximum equipment productivity is required for survival with so many challenges facing modern farm profitability.
- Designed for modern farm tractors that produce significant horsepower, requiring greater protection for high production machines that impose much greater stress on transmissions and axles with multiple high output hydraulic applications.

FEATURES & BENEFITS



ADVANCED TECHNICAL FEATURES	PERFORMANCE BENEFIT
Synthetic Blend	Improves performance over wider temperature range and reduces tendency of fluid breakdown due to sustained high operating temperatures.
Shear stable viscosity with a high viscosity index	Maintains and sustains optimum viscosity over the service intervals to ensure overall productivity and efficiency.
Leak-resistant seal maintainer technology	Conditions seals to prevent leakage as equipment ages with higher hours of operation.
Special friction modifiers	Improves brake system function and protects against brake chatter.
Clean system-detergent/dispersant	Helps minimize tendency for transmission clutch plate glazing from high temperatures and deposit build up protecting against loss of friction control and power transfer efficiency to the drive train. Maintains high-pressure hydraulic system efficiency by preventing hydraulic valve deposit build up and sluggish operation.
Double acting anti-rust/anti foam technology	Prevents system corrosion and controls tendency for air entrainment, resulting in efficient power transfer.
Wide temperature range	Excellent fluidity and start-up lubrication improves system response time in colder temperature
Anti-slip formulation	Ensures power transfer efficiency under high loads in transmissions, axles and all hydraulic applications.

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APPLICATIONS



Formulated to meet John Deere J20C and is recommended for use in the following applications:

- John Deere JDM J20C
- AGCO Power Fluid 821XL
- AGCO CMS M1135
- AGCO CMS M1141
- AGCO GIMA-CMS M1143
- AGCO GIMA-CMS M1145
- Allison C-4
- API GL-4
- ASTM D6973 (Eaton 35VQ)
- CAT TO-2 (obsolete)
- CASE JIC 143, 144
- Case New Holland: Ford M2C134-D
- Case New Holland: FNHA 2-C-201.00
- Case New Holland: CNH MAT 3525
- · Case New Holland: CNH MAT 3509
- Case New Holland: CNH MAT 3540 *
- Case New Holland: Case MS 1205
- Case New Holland: Case MS 1206
- Case New Holland: Case MS 1207

- Case New Holland: Case MS 1209
- Denison Hydraulics HF-0, HF-1, HF-2
- Eaton E-FDGN-TB002-E
- Eaton Vickers I-286-S
- Eaton Vickers M-2950-S
- International Harvester B-5 / B-6
- Komatsu Dresser B-06-0001 and B-06-0002
- Kubota UDT
- Minneapolis Moline Q-1766, Q-1722, Q1766B
- New Holland WB NWH 410B
- Oliver Q-1705
- Renk Doromat 873
- Renk Doromat 874A / 874B
- Volvo WB 101
- White Farm Equipment Q-1826
- ZF TE-ML 03E
- ZF TE-ML 05F
- ZF TE-ML 06K

*Not recommended as a top off fluid for zinc free fluids. When transitioning from a zinc free fluid, please drain reservoir and refill with Mystik JT-5 Synthic Blend TFX Fluid.

*Suitable for use in tractors requiring MAT 3540 built before 2013 ONLY

Always check your equipment owner's manual for proper lubricant requirement.

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PROPERTIES



Typical Properties for Mystik JT-5 Synthetic Blend TFX Tractor Trans-Hydraulic Fluid:

		MYSTIK J-5 Synthetic Blend TFX TRACTOR TRANS-HYDRAULIC FLUID
Material Code		663514002
Gravity, ASTM D4052, °API		32.1
Density, lb/gal		7.2
Flash Point, COC, ASTM D92,	F (°C)	424 (218)
Viscosity, ASTM D2983, cP		
at -20°C		2,500
at -35°C		17,500
ASTM D445		
cSt at 40°C		53.8
cSt at 100°C		9.8
Viscosity Index, ASTM D2270		169
Pour Point, ASTM D97, °F (°C)		-54 (-48)
Color, ASTM D1500		L1.0
ASTM D892, Sequence I, II, III		Pass
John Deere J20C Tests		
Shear Stability Test	JDQ 102	8.0

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Mystik® JT-5® Tractor Trans-Hydraulic Fluid



OVERVIEW



- A multi-function hydraulic, transmission, differential, and brake fluid for tractors and other off-road
 equipment with a single reservoir for all four systems.
- Provides excellent performance in modern agricultural equipment, with outstanding protection against gear wear, brake chatter, and oxidation.
- Particularly suited for hard-working applications where an added level of protection is desired.
- · Proven field performance.

FEATURES & BENEFITS



- Excellent filterability characteristics along with rust and corrosion inhibitors, water tolerance, and wide temperature range performance.
- Contains special friction modifiers for superior brake chatter control.
- · Formulated to resist leakage.
- Formulated with advanced detergent/dispersant, antiwear, antioxidant, antirust, and antifoam additives.

APPLICATIONS



Mystik JT-5 Tractor Trans-Hydraulic Fluid is formulated to meet John Deere J20C and is recommended for use in applications that require:

- John Deere JDM J20C
- AGCO Power Fluid 821XL
- AGCO CMS M1135
- AGCO CMS M1141
- AGCO GIMA-CMS M1143
- AGCO GIMA-CMS M1145
- Allison C-4
- API GL-4
- ASTM D6973 (Eaton 35VQ)
- CAT TO-2 (obsolete)
- CASE JIC 143, 144
- Case New Holland: Ford M2C134-D
- Case New Holland: FNHA 2-C-201.00
- Case New Holland: CNH MAT 3525
- Case New Holland: CNH MAT 3509

- Case New Holland: Case MS 1205
- Case New Holland: Case MS 1206
- Case New Holland: Case MS 1207
- Case New Holland: Case MS 1209
- Denison Hydraulics HF-0, HF-1, HF-2
- Eaton E-FDGN-TB002-E
- Eaton Vickers I-286-S
- Eaton Vickers M-2950-S
- International Harvester B-5 / B-6
- Komatsu Dresser B-06-0001 and B-06-0002
- Kubota UDT
- Minneapolis Moline Q-1766, Q-1722, Q1766B
- New Holland WB NWH 410B
- Oliver Q-1705
 - Renk Doromat 873

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APPLICATIONS



- Renk Doromat 874A / 874B
- Volvo WB 101
- White Farm Equipment Q-1826
- ZF TE-ML 03E
- ZF TE-ML 05F
- ZF TE-ML 06K

Always consult your equipment owners manual for proper lubricant selection.

PROPERTIES



Typical Properties for Mystik JT-5 Tractor Trans-Hydraulic Fluid:

		MYSTIK J-5 TRACTOR HYDRAULIC FLUID	
Material Code		663509002	
Gravity, ASTM D405	2, °API	30.5	
Density, lb/gal		7.28	
Flash Point, COC, AS	STM D92, °F (°C)	450 (232)	
Viscosity, ASTM D29	983, cP		
at -20°C		3,918	
at -35°C		33,480	
ASTM D445			
cSt at 40°C		58.7	
cSt at 100°C		9.7	
Viscosity Index, AST	M D2270	145	
Pour Point, ASTM DS	97, °F (°C)	-51 (-46)	
Color, ASTM D1500		L1.0	
ASTM D892, Sequer	nce I, II, III	Pass	
John Deere J20C To	ests		
Shear Stability Test	JDQ 102	7.6	

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Mystik® Multi-Purpose ATF



OVERVIEW



- Multi-function, automatic transmission fluid manufactured from high-quality base stocks and premium additives to protect transmission parts against rust, corrosion, and wear.
- Engineered to give superior protection and performance where the following lubricants are specified: General Motors transmissions calling for DEXRON®-III, DEXRON®-IIE and DEXRON®-II fluids; Ford transmissions calling for MERCON® type ATFs; Allison Transmission Division (C-4).

FEATURES & BENEFITS



- A single fluid for a wide variety of uses: automotive automatic transmissions, industrial torque converters, sensitive hydraulic fluid applications, powershift transmissions, Allison automatic transmissions, and power steering fluids.
- · Excellent stability for long service life.
- · Treated to prevent wear, leaking, and foaming.
- Detergent inhibitor provides gum-up resistance.
- · Dyed red for leak detection.

APPLICATIONS



- For use in automatic transmissions manufactured by General Motors and Ford for model years 2006 and prior (except those calling for FORD Type F Fluid, MERCON® SP, MERCON® V, MERCON® LV, DEXRON® -VI, and CVT fluids).
- Suitable for use in foreign cars and trucks requiring the use of DEXRON®-III, DEXRON®-IIE, DEXRON®-II fluids, and MERCON® type ATFs.
- Meets the performance requirements of the following hydraulic fluid, powershift transmission fluid, and automatic transmission fluid specifications:

tomatic transmission fluid speci Vickers M-2950-S and I-286-S Caterpillar TO-2 Allison Type C-4 Allison TES 389B

GM DEXRON® -IIIG/H, IID/E Ford MERCON® Ford ESP-M2C166H Chrysler ATF +3 (MS 7176E)

Suitable for use where the following specifications are recommended:

Audi G 052 162-A1/A2 (ZF Lifeguardfluid 5) MAN 339A

Volvo 97325, 97335, CE 97340 VW G-052 025 A2; G-052 162

ZF all 3 & 4 speed transmission; ZF TE-ML 05L, TE-ML 09 and TE-ML 21L

- May be used industrially as an excellent multi-viscosity, all-weather hydraulic fluid, torque converter fluid, and low-temperature gear lubricant.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik Multi-Purpose ATF:

Material Code	633135002
Gravity, ASTM D4052, °API	33.0
Pounds Per Gallon	7.16
Flash Point, ASTM D92, COC, °F (°C)	424 (218)
Pour Point, ASTM D97, °F (°C)	-54 (-48)
Viscosity, ASTM D445	
cSt at 40°C	34.3
cSt at 100°C	6.95
ASTM D2983	
cP at -20°C	1,020
cP at -40°C	15,100
Vicosity Index, ASTM D2270	169
Color	Red

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Houston, Texas
Manufactured in USA

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Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com

Mystik® Synthetic Multi-Vehicle ATF



OVERVIEW



- Contains the highest-quality synthetic base stock combined with a state-of-the-art additive system to provide superior performance in automatic and powershift transmissions.
- Suitable for use in transmissions calling for Ford MERCON® V, Ford MERCON (obsolete), General Motors DEXRON®-IIIH (obsolete), and Allison C-4 type fluids.

FEATURES & BENEFITS



- · Superior oxidation and thermal stability.
- Outstanding antiwear performance for protection of transmission hardware.
- Excellent cold-temperature flow properties.
- Compatible with a wide range of seal materials to prevent transmission leaks.
- · Can be used in most vehicles.
- Multi-vehicle compatibility enables inventory optimization without the use of ATF supplements.

APPLICATIONS



Suitable for use in GM, Ford, Toyota, Honda, Nissan, Hyundai, and other imported vehicles where the following specifications are called for:

- Ford MERCON and MERCON V* (Not recommended for use in California)
- GM DEXRON-II and DEXRON-III
- Allison C-4, TES-295 (not OEM-approved), TES-389 (not OEM-approved)
- BMW LT-71141, ETL-7045E, 2634, 8072B.
- Nissan/Infiniti Nissan ATF, Matic D, Matic J, and Matic K
- Mitsubishi Diamond SP-II and SP-III
- Hyundai/KIA SP-II and SP-III
- Toyota/Lexus Type T, T-III and T-IV
- Honda/Acura ATF-Z1 (except in CVTs)
- Mercedes Benz 236.3; .5; .6; .7; .9; .10; and .11; ATF 3403 M-115
- Volvo Standard 1273,41 (Transmission oil 97341); 1161521; 1161540 / 1161640 JWS 3309

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APPLICATIONS



- Volkswagen/Audi G052025 (A2); G052055; G052162 (A1, A2); G052990 (A2); G055025 (A2); GUS000162
- ZF TE-ML 11A; 11B
- JASO 1A
- MAN 339A
- Mazda Type T-IV
- Subaru ATF-HP
- Renault Matic D2

*Please note that California law prohibits manufacturers of multi-vehicle ATF from recommending products in certain applications where the viscometrics do not match those of official OEM specifications. CITGO therefore does not recommend the use of Mystik® Synthetic Multi-Vehicle ATF in these applications in California.

Do not use Mystik Synthetic Multi-Vehicle ATF in vehicles calling for Type F, DEXRON VI, MERCON SP, MERCON LV, Toyota/Lexus WS, and CVTs.

Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES

Typical Properties for Mystik Synthetic Multi-Vehicle ATF:



Material Code	633136002
Viscosity	
cSt at 40°C	35
cSt at 100°C	7.2
Viscosity Index	178
Specific Gravity @ 60 °F	0.851
Pour Point ASTM D97, °F (°C)	-60 (-51)
Brookfield Viscosity @ -40 °C, cP	9600
Appearance	Red

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Mystik® Lubricants Tenax® Fluids



OVERVIEW



- Heavy duty transmission and final drive lubricants formulated to meet the performance requirements of Caterpillar TO-4 (SAE 10W, 30, and 50) and Allison C-4 (SAE 10W and 30).
- Provide the protective qualities essential to maximize equipment life and performance in today's advanced equipment.

FEATURES & BENEFITS



- Meet the performance requirements of Caterpillar TO-4 (all grades).
- Meet the Allison C-4 specification (SAE 10W and 30).

APPLICATIONS



- Recommended for use in heavy duty powershift transmissions, final drives, hydrostatic transmissions, torque converters, and hydraulics where a TO-4 or C-4 fluid is recommended.
- SAE 50 can be used in Eaton/Fuller, Rockwell, and Dana/Spicer transmissions for service fill.
- Excellent performance in ZF powershift transmissions used in off-road machines, special vehicles, and lift trucks.
- Not recommended as engine lubricants.

PROPERTIES





Material Code	663510002	663511002	663512002
SAE Grade	10W	30	50
Gravity, ASTM D4052, °API	31.1	31.0	27.3
Density, lb/gal	7.3	7.4	7.4
Specific Gravity	0.877	0.886	0.896
Viscosity			
at 35°C, cP	23,000	_	_
at 40°C, cSt	38.1	96	209.4
at 100°, cSt	6.1	11.3	17.9
Viscosity Index	112	104	100
Flash Point, ASTM D92, COC, °F (°C)	420 (216)	446 (230)	511 (266)
Pour Point, ASTM D97, °F (°C)	-38 (-39)	-27 (-33)	0 (-18)
Color, ASTM D1500	L3.0	3.5	4.0

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Mystik® Twin Disc Fluid



OVERVIEW



• A very low-viscosity, low-friction fluid designed for specialized applications.

FEATURES & BENEFITS



- · Contains foam inhibitor.
- Approved by Twin Disc Clutch Company for certain applications.

APPLICATIONS



- For 3-stage torque converters made by the Twin Disc Clutch Company (approved list S364C).
- · May be used as an ISO 2 spindle oil.
- Certain Twin Disc Clutch Company converters do not use this type of fluid; consult owner's manual for proper lubricant selection.

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PROPERTIES



Typical Properties for Mystik Twin Disc Fluid:

Material Code	663540002
Viscosity Grade:	
SAE Grade	Thinner than SAE 5W
ISO Grade (Approx.)	2
Gravity, ASTM D4052, °API	43.0
Density, lb/gal	6.75
Specific Gravity	0.811
Viscosities:	
at 40°C, cSt	2.5
at 100°F, cSt (SUS)	2.67 (34.3)
Flash Point, ASTM D92, °F (°C)	187 (86)
Fire Point, ASTM D92, °F (°C)	198 (92)
Pour Point, ASTM D97, °F (°C)	-40 (-40)
Distillation, IBP	378
Aniline Point, ASTM D611, °F (°C)	180 (82)
Carbon Residue, Weight %	0.01
Color	Red

NOTE: Certain Twin Disc Company converters do not use this type fluid. Make certain the unit involved requires a fluid listed on Twin Disc Approved List Sheet "S364C."

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Mystik® JT-6® Heavy Duty SynBlend 460 #2 Grease



Formerly known as Mystik JT-6 Super Heavy Duty 460 Grease

OVERVIEW



- An extended-service capable, extreme pressure lubricating grease designed for a wide variety of heavy duty industrial, on-highway and off-highway equipment applications, especially pins, bushings and anti-friction bearings.
- Provides extra wear protection when operating with higher loads, resulting in longer equipment component life. Highly recommended for heavily loaded plain and anti-friction bearings such as those found in steel, paper, and cement industries.

FEATURES & BENEFITS



- Lithium complex thickened grease formulated with a premium additive system and a combination of synthetic and conventional base oils.
- Optimized formula provides superior performance properties over a wide operating range (-5° to 350°F), for a variety of weather conditions and application temperatures.
- Proprietary adhesive, stay-in-place formula helps seal out contaminants and extend lubrication intervals.
- High load-carrying capacity offers wear protection under severely loaded conditions; capable of carrying up to 3X more load than conventional greases.
- Enhanced water and corrosion resistance protects equipment under adverse conditions including saltwater spray and exposure to corrosive anti-icing agents.
- Superior protection in a variety of applications where enhanced load carrying capability, water resistance, and anti-corrosion protection properties are required.
- Helps increase equipment life through superior performance.

APPLICATIONS



- Heavy duty and extreme heavy haul trucking: fifth wheels, U-joints, kingpins, steering drag links, shackle pins, pivots, cross shaft spring pins.
- Mining and construction: bulldozers, scrapers, backhoes, excavators, compactors, cranes, paving machinery, articulated vehicles, soil compactors, graders, ditch hoes, loaders.
- Pit and quarry equipment: rock crushers, conveyors, rock drills, bridge cranes, water tender, log trucks, chip van trucks.
- Agriculture: tractors, implements, tillage, planting and seeding machinery, sprayers and spreaders, hay balers, harvesting machinery, combines, mowers, skid steers.
- Heavy industry: heavily loaded plain and anti-friction bearings in cement, paper, and metal (steel, aluminum, copper) industries.
- Forestry and logging: harvester-processors, feller-bunchers, mulcher-masticators, brush cutters, shovel
 loggers, skidders, brush piling shovels, brush rakes, yarders, log landing machines, shovels, stroke
 delimbers, loaders, grinders, chippers, debarkers, forest road machines.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-6 Heavy Duty SynBlend 460 #2:

Material Code	665087002
NLGI Grade	2
ISO Viscosity Grade	460
Thickener Type	Lithium Complex
Texture	Smooth
Color	Magenta
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265 °F (°C)	500 (260)
Rust Prevention, ASTM D1743, rating	Pass
5% Synthetic Sea Water Corrosion, ASTM D5969, rating	Pass
Water Washout, ASTM D1264, % Loss @ 175°F	2.3
Water Spray Off, ASTM D4049, % Loss	9.4
US Steel Mobility @ 0°F, gpm	38
Four-Ball Wear, ASTM D2266, mm	0.49
Four-Ball Weld, ASTM D2596, kgf	800
Base Oil Viscosity @ 40°C, cSt	460

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Mystik.

Mystik® JT-6® High Temp Greases

Formerly know as Mystik JT-6 Hi-Temp Greases

OVERVIEW



- Extremely versatile, high-temperature lithium complex greases that combine excellent multipurpose properties with a high dropping point for application over a wide temperature range.
- Superior protection for a wide variety of automotive, agricultural, trucking, mining, construction, and industrial equipment.

FEATURES & BENEFITS



- High Timken OK Load.
- Excellent Four-Ball Wear and extreme pressure (EP) performance.
- · Outstanding shock load protection.
- · Highly recommended for disc brake wheel bearings.
- · Approved for use in Rockwell and Spicer universal joints.
- JT-6 Hi-Temp No. 1 developed for applications where service conditions dictate a grease
 of softer consistency.
- Both grades meet the highest performance categories of ASTM D4950 Automotive Grease Classification System, GC for wheel bearing service and LB for chassis service.



APPLICATIONS



- Heavily loaded industrial, mining, and construction applications.
- Severe service requirements such as disc brake wheel bearings, backhoe hinge pins, and conveyor bearings.
- Mining operations, sand/gravel plants, and construction equipment where shock loads are placed on bearings.
- Refer to equipment owner's manual for proper lubricant recommendation.

Approved for:

- Dana Corporation
- · Spicer Universal/Joint Division
- M-2006-J (#2)
- · Registered NLGI GC-LB
- Weatherford Artificial Lift (#2)

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PROPERTIES



Typical Properties for Mystik JT-6 High Temp Greases:

Material Code	665003002	665005002
NLGI Consistency Number	1	2
NLGI Certified, ASTM D4950	GC-LB	GC-LB
Thickener Type	Lithium Complex	Lithium Complex
Texture	Smooth, Adhesive	Smooth, Adhesive
Color	Red	Red
Worked Penetration, ASTM D217	310-340	265-295
Dropping Point, ASTM D2265, °F (°C)	500 (260)	550 (288)
Water Washout, ASTM D1264, % loss @ 175°F	9.4	2.5
Rust Prevention, ASTM D1743, rating	Pass	Pass
Copper Corrosion, ASTM D4048, rating	1b	1b
Oil Separation, ASTM D1742, % loss	2	1
Four-Ball Wear, ASTM D2266, mm	0.45	0.45
Four-Ball Weld, ASTM D2596, kgf	315	315
Four-Ball Load Wear Index, ASTM D2596, kgf	50	50
Approximate Temperature Range, °F (°C)	-10 to 325 (-23 to 163)	-10 to 325 (-23 to 163)
Base Oil Viscosity: 40°C, cSt	630	630

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Mystik® JT-6® High Temp 3% Moly #2 Grease



Formerly known as Mystik JT-6 Hi-Temp Grease with Moly

OVERVIEW



- A high-performance mining and construction grease that provides superior performance where a moly-compounded, adhesive, multi-purpose high temperature lithium complex grease is required.
- Contains 3% molybdenum disulfide (moly) for extreme service conditions found in mining, construction, and severe industrial applications.

FEATURES & BENEFITS



- · Optimum protection in severe environments.
- An exceptionally versatile, premium-quality, multi-purpose lithium complex grease.
- Excellent resistance to oxidation and corrosion.
- · Superior antiwear and extreme pressure protection.
- · Water-insoluble and resistant to water washout.
- Meets the highest performance categories of ASTM D4950 Automotive Grease Classification System, GC for wheel bearing service and LB for chassis service.



APPLICATIONS



- Superior wheel bearing and chassis performance.
- Superior protection to lubricate a wide variety of heavy duty automotive, agricultural, trucking, industrial, mining, and construction equipment.
- · Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-6 High Temp 3% Moly #2:

Material Code	665056002
NLGI Grade	2
Thickener Type	Lithium Complex
Texture	Smooth, Adhesive
Color	Gray/Black
Solid Additive, %	Molybdenum Disulfide 3%
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265, °F (°C)	500 (260) Min.
Water Washout, ASTM D1264, % loss @ 100°F	2.5
Rust Prevention, ASTM D1743, rating	Pass
Copper Corrosion, ASTM D4048, rating	1b
Oil Separation, ASTM D1742, % loss	1.0
Timken OK Load, ASTM D2509, lb.	60
Four-Ball Wear, ASTM D2266, mm	0.45
Four-Ball Weld, ASTM D2596, kgf	400
Approximate Application Temperature Range, °F (°C)	-10 to 325 (-23 to 163)
Base Oil Viscosity @ 40°C, cSt	630

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Mystik[®] JT-6[®] Industrial Robot Grease #0



Formerly known as Mystik® JT-6® RoboGold #0

OVERVIEW



- Exceptional grease for use in modern robotic manufacturing equipment.
- Engineered to protect against wear in reduction gears.
- Proven performance.

FEATURES & BENEFITS



- Formulated with premium quality Synthetic Polyalphaolefin (PAO) and mineral base oils.
- Premium Lithium 12-Hydroxystearate thickener.
- Contains an organic molybdenum additive for exceptional antiwear performance.
- Excellent flow and channel resistance characteristics.
- Exceptional extreme pressure protection.
- Outstanding resistance to oxidation and corrosion.

APPLICATIONS



- Modern robotic manufacturing equipment.
- Reduction gears and gearboxes requiring an EP NLGI #0 grease.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-6 Industrial Robot Grease #0

Material Code	665032002
NLGI Consistency Number	0
Thickener Type	Lithium 12-Hydroxystearate
Texture	Smooth
Color	Yellow to Amber
Worked Penetration, ASTM D217	355-385
Dropping Point, ASTM D2265, °F (°C)	376 (191)
Copper Corrosion, ASTM D4048, rating	1a
Oxidation Stability, ASTM D942, (99°C, 100h), psi loss	2
Rust Prevention, ASTM D1743, rating	Pass
Low Temperature Torque, ASTM D4693 (-40°C), N-m	1.11
Four-Ball Wear, ASTM D2266, mm	0.39
Four-Ball Weld, ASTM D2596, kgf	315
Four-Ball Last Non-Seizure Load, ASTM D2596, kgf	126
Four-Ball Load Wear Index, ASTM D2596, kgf	67
Fretting Wear, ASTM D4170, mg	5.4
Base Oil Viscosity: 40°C, cSt	80

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Mystik® JT-6® Low Temp #2 Grease

Mystik.

Formerly known as Mystik JT-6 Lo-Temp Extreme Grease

OVERVIEW



- Multi-purpose grease for bearings operating in low to medium temperatures, with excellent antiwear protection under high loads.
- For conditions where extremely cold temperatures prevail, minimum friction is necessary, high speeds are involved, excellent rust protection is required, or equipment is stored or used intermittently.
- Considered by many to be the ultimate mining grease due to its ability to lubricate over a wide temperature range.

FEATURES & BENEFITS



- Light-colored, low-staining, and water-resistant.
- Outstanding low-temperature performance.
- Excellent antiwear and extreme pressure protection.
- Water-resistant to seal water out and protect against corrosion.
- Recommended operating temperature range: -40° to 250°F.

APPLICATIONS



- Bearing and chassis applications operating in low to medium temperatures.
- Recommended for use where equipment is stored or used intermittently and excellent rust protection is required.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES

Typical Properties for Mystik JT-6 Low Temp #2:



Material Code	665027002
NLGI Grade	2
Thickener Type	Anhydrous Calcium
Texture	Smooth
Color	Medium Amber
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265, °F (°C)	285 (140)
Water Washout, ASTM D1264, % loss @ 175°F	5
Rust Prevention, ASTM D1743, rating	Pass
Oil Separation, ASTM D1742, % loss	5
Timken OK Load, ASTM D2509, lb	45
Four-Ball Wear, ASTM D2266, mm	0.56
Four-Ball Weld, ASTM D2596, kgf	315
US Steel Mobility @ 0°F, gpm	540
Low Temperature Torque, ASTM D4693, N-m	0.48
Approximate Temperature Range, °F (°C)	-40° to 250° (-40° to 121°)
Base Oil Viscosity @ 40°C, cSt	20

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Mystik® JT-6® Low Temp SynBlend #2 Grease



Formerly known as Mystik JT-6 Synthetic Blend Grease

OVERVIEW



- A premium-quality, multi-purpose, high-temperature, lithium complex EP grease with excellent low-temperature properties.
- A unique blend of petroleum base oils and synthetic fluids in an optimized formulation that provides both excellent resistance to oxidation at elevated temperatures and exceptionally low start-up resistance (torque) under extreme low-temperature conditions.

FEATURES & BENEFITS



- Provides superior protection for a wide range of applications and service conditions.
- Engineered to protect under severe operating conditions.
- · Lubricates extremely well over a very broad temperature range.
- · Excellent resistance to oxidation and corrosion.
- Superior antiwear and extreme pressure protection.
- Excellent oil bleed characteristics and seal compatibility.
- Certified to meet the highest performance categories of ASTM D 4950 Automotive Grease Classification System, GC for wheel bearing service and LB for chassis service.



APPLICATIONS



- Engineered for the lubrication and surface corrosion protection of vehicles and equipment operating over the temperature range of -27 to 325°F (-33 to 163°C).
- Excellent for high-speed bearing applications.
- Superior protection to lubricate a wide variety of automotive, agricultural and industrial equipment.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-6 Low Temp SynBlend #2:

Material Code	665051002
NLGI Grade	2
Thickener Type	Lithium Complex
Texture	Smooth, Buttery
Color	Blue
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265, °F (°C)	500 (260)
Water Washout, ASTM D1264, % loss @ 100°F	1.4
Rust Prevention, ASTM D1743, rating	Pass
Copper Corrosion, ASTM D4048, rating	1a
Timken OK Load, ASTM D2509, lb.	65
Four-Ball Wear, ASTM D2266, mm	0.45
Four-Ball Weld, ASTM D2596, kgf	315
NLGI Certified, ASTM D4950	GC-LB
Base Oil Viscosity @ 40°C, cSt	70

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Mystik® JT-6® Marine Multi-Purpose #2 Grease



Formerly known as Mystik JT-6 High Performance Marine Grease

OVERVIEW



- A smooth, tacky blue grease with outstanding water resistance, designed to provide excellent lubrication for greased chassis points and other wet-environment applications.
- Combines an anhydrous calcium thickener system, a special polymer, and a proprietary additive system
 to ensure superior performance against rusting in both fresh and sea water marine applications.

FEATURES & BENEFITS



- Premium high-performance extreme pressure (EP) marine grease.
- Outstanding water washout resistance and protection against saltwater corrosion.
- Excellent wear protection and load-carrying capability.
- · Polymer-fortified for excellent metal adhesion.
- Lubricates well over a wide temperature range (0 to 250°F).

APPLICATIONS



- Recommended for marine applications including greased automotive chassis points, trailer wheel bearings, bearing buddies, boat lifts, hydraulic jack plates, steering components, tilt and trim systems, and more.
- Excellent for non-marine applications where a general multi-purpose EP grease with outstanding water and corrosion resistance is desired: water pumps, fifth wheels, and other equipment operating in wet conditions.
- · Not recommended for disc brake wheel bearings.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-6 Marine Multi-Purpose #2:

Material Code	665065002
NLGI Grade	2
Thickener Type	Anhydrous Calcium
Texture	Smooth, Adhesive
Color	Blue
Worked Penetration, ASTM D217	265-295
Approximate Temperature Range, °F (°C)	0 to 250 (-18 to 121)
Dropping Point, ASTM D2265, °F (°C)	290 (143)
Water Washout, ASTM D1264, % loss @ 100°F	0.9
Oil Separation, ASTM D1742, % loss	<1
Rust Prevention, ASTM D1743, rating	Pass
Copper Corrosion, ASTM D4048, rating	1b
5% Synthetic Sea Water Corrosion, ASTM D5969, rating	Pass
Timken OK Load, ASTM D2509, lb	55
Four-Ball Weld, ASTM D2596, kgf	250
Four-Ball Wear, ASTM D2266, mm	0.6
Base Oil Viscosity @ 40°C, cSt	1080

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Houston, Texas		
Manufactured in USA		

Customer Service Line 1-800-331-4068 Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com



OVERVIEW



- An exceptionally water-resistant, medium temperature range multi-purpose grease for extreme pressure loads and slow- to medium-speed bearings.
- Works especially well where extended lubrication intervals are practical, highly loaded or shock loaded grease lubricated applications exist, and excellent rust protection is desired.

FEATURES & BENEFITS



- Light-colored and low staining, with a very low oil separation rate.
- Provides excellent antiseize protection under high loads.
- Outstanding adhesion enables product to stay in place better than most others.
- · Excellent for greased chassis points, fifth wheels, and water pumps.
- Fully rust- and oxidation-inhibited.

Also available in an aerosol form:

- Penetrates hard-to-reach points to leave a protective coating of grease.
- · Stays in place, even under extreme pressures and severe service.
- · Resists rust, corrosion, oxidation, and wear.
- · Ideal for hard to reach points and precise placement.
- Returns to a non-fluid consistency in about 15 minutes.

APPLICATIONS



- For extreme pressure loads, slow- to medium-speed bearings, greased chassis points, fifth wheels, and water pumps.
- Where extended lubrication intervals are practical, highly loaded or shock loaded grease lubricated applications exist, or where excellent rust protection is desired.
- Aerosol version is recommended for hard to reach locations.
- Refer to equipment owner's manual for proper lubricant recommendation.

DANGER: Extremely flammable aerosol. Refer to SDS for proper transport, storage, and handling. Always check with local jurisdictions for warehouse requirements.

NOTE: Because this product has better adhesion, it is a little more difficult to pump than less-adhesive greases. Use of a follower plate is recommended where air-driven pumps are used.

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Manufactured in USA

PROPERTIES



Typical Properties for Mystik JT-6 Multi-Purpose #2:

Material Code	665006002	AEROSOL (Grease) 665007002
NLGI Grade	2	2
Thickener Type	Anhydrous Calcium	Anhydrous Calcium
Texture	Smooth, Adhesive	Smooth, Adhesive
Color	Medium Amber	Medium Amber
Worked Penetration, ASTM D217	265-295	265-295
Dropping Point, ASTM D2265, °F (°C)	290 (143)	290 (143)
Water Washout, ASTM D1264, % loss @ 100°F	0.9	0.9
Rust Prevention, ASTM D1743, rating	Pass	Pass
Oil Separation, ASTM D1742, % loss	< 1	< 1
Timken OK Load, ASTM D2509, lb.	55	55
Four-Ball Wear, ASTM D2266, mm	0.6	0.6
Four-Ball Weld, ASTM D2596, kgf	250	250
Four-Ball Last Non-Seizure Load, ASTM D2596, kgf	65	65
Approximate Temperature Range, °F (°C)	0 to 250 (-18 to 121)	0 to 250 (-18 to 121)
Viscosity @ 40°C, cSt (Incl. Oil Soluble Additives)	1080	_

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Customer Service Line 1-800-331-4068 Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com

Mystik® JT-6® Synthetic 100 #1 Grease

Formerly known as Mystik JT-6 Synthetic Hi-Temp Grease



OVERVIEW



- · High-temperature, full synthetic lithium complex grease that combines excellent multi-purpose properties with a high dropping point and low temperature pumpability, providing a wide operating temperature range.
- Provides superior protection critical to heavily loaded industrial, mining, and construction applications.

FEATURES & BENEFITS



- Premium-quality lithium complex soap thickener.
- Superior wear control, extreme pressure (EP) performance, and water resistance.
- Excellent corrosion protection in corrosive environments.
- Outstanding low-temperature performance and pumpability.
- Excellent high-temperature oxidation resistance.

APPLICATIONS



- Heavy industrial applications and steel mills.
- Mining and construction applications.
- Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES



Typical Properties for Mystik JT-6 Synthetic 100 #1:

Material Code	665071002
NLGI Grade	1
Thickener Type	Lithium Complex
ISO Viscosity Grade	100
Texture	Smooth
Color	Blue
Worked Penetration, ASTM D217	310-340
Dropping Point, ASTM D2265, °F (°C)	500 (260)
Rust Prevention, ASTM D1743, rating	Pass
Emcor Corrosion Protection, ASTM D6138, rating	Pass
5% Synthetic Sea Water Corrosion, ASTM D5969, rating	Pass
Water Washout, ASTM D1264, % Loss	1.2
Four-Ball Weld, ASTM D2596, kgf	500
Base Oil Viscosity @ 40°C, cSt	110

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Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com

Mystik® JT-6® Synthetic 220 #2 Grease



Formerly known as Mystik® JT-6® Synthetic Hi-Temp 220 #2

OVERVIEW



- High-temperature, full synthetic lithium complex grease that combines excellent multi-purpose
 properties with a high dropping point and low temperature pumpability, providing a wide operating
 temperature range.
- Provides superior protection critical to heavily loaded industrial, mining, and construction applications, as well as automotive service classification GC-LB.

FEATURES & BENEFITS



- Premium-quality lithium complex soap thickener.
- Superior wear control, extreme pressure (EP) performance, and water resistance.
- Excellent corrosion protection in corrosive environments.
- · Outstanding low-temperature performance and pumpability.
- Excellent high-temperature oxidation resistance.
- Certified to meet the highest performance categories of ASTM D 4950 Automotive Grease Classification System, GC for wheel bearing service and LB for chassis service.



APPLICATIONS



- Heavy industrial applications and steel mills.
- Mining and construction applications.
- · Automotive service.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Online at www.mystiklubes.com

Manufactured in USA

PROPERTIES



Typical Properties for Mystik JT-6 Synthetic 220 #2:

Material Code	665077002
NLGI Consistency Number	2
ISO Viscosity Grade	220
Texture	Smooth
Color, Observed	Blue
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265, °F (°C)	500 (260)
Rust Prevention, ASTM D1743, rating	Pass
Emcor Corrosion Protection	Pass
5% Synthetic Sea Water Corrosion	Pass
Water Washout, ASTM D1264, % Loss	1.8
Oil Separation, ASTM D1742, g Loss	0.90
Four-Ball Weld, ASTM D2596, kgf	500
NLGI Classification	GC-LB
Base Oil Viscosity: 40°C, cSt	220

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Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com

Mystik® JT-6® Synthetic 460 #00 Grease



Formerly known as CITGO® SynDurance Premium Synthetic 460 #00

OVERVIEW



- The latest technology using synthetic polyalphaolefins (PAOs).
- Recommended for extended service applications; reducing operating costs and extending component life.
- Specifically engineered for heavy duty trailer wheel bearings operating under a wide range of conditions.

FEATURES & BENEFITS



- Offers performance in demanding conditions of high and low temperatures, and the potential for energy savings and reduction in operating temperatures.
- Fully additized to provide superior extreme pressure (EP) and anti-wear characteristics and inhibited to resist corrosion and oxidation.
- Flows smoothly and evenly at temperature extremes from -40°C up to 190°C with appropriate re-lubrication intervals.

APPLICATIONS



- · Trailer wheel ends
- · Implement gear boxes
- · Motorized wheelchair gear boxes
- · Motorized conveyor gear boxes.

Approvals: Stemco® Heavy Duty Axles

· Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES



Typical Properties for Mystik JT-6 Synthetic 460 #00:

Material Code	655424002
NLGI Grade	00
Thickener Type	Lithium Complex
Color	Red
Texture	Smooth, Adhesive
Worked Penetration, ASTM D217	400-430
Rust Prevention, ASTM D1743, Rating	Pass
Emcor Corrosion Protection, ASTM D6138, Rating	Pass
5% Synthetic Salt Water Corrosion, ASTM D5969, Rating	Pass
Low Temperature Torque, ASTM D4693, N-m @ -40°C	2
Four-Ball Weld, ASTM D2596, kgf	315
Base Oil Viscosity @ 40°C, cSt	460

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Mystik® JT-6® Synthetic 460 Greases

Formerly known as CITGO® SynDurance® ST 460 #1 and SynDurance® Premium Synthetic 460 #2



OVERVIEW



- The latest technology using synthetic polyalphaolefins (PAOs).
- Recommended for extended service applications; reducing operating costs and extending component life.
- Available in NLGI Grades #1 and #2.
- JT-6 Synthetic 460 #1 and #2 satisfy a wide range of industrial and heavy duty applications.

FEATURES & BENEFITS



- Both NLGI Grades offer performance in demanding conditions of high and low temperatures, and offer the potential for energy savings and reduction in operating temperatures.
- Fully additized to provide superior extreme pressure (EP) and anti-wear characteristics and inhibited to resist corrosion and oxidation.
- JT-6 Synthetic 460 #1 and #2 have superior water washout and spray off resistance, and are designed to prevent corrosion in fresh and sea water conditions - particularly important when exposed to corrosive anti-icing agents and water spray conditions.
- JT-6 Synthetic 460 #2 meets the NLGI Service Classification of GC-LB and displays the NLGI Certification Mark as an Automotive Wheel Bearing and Chassis Lubricant.



APPLICATIONS



- JT-6 Synthetic 460 #1 and #2 satisfy a wide range of industrial applications including:
 - Industrial Gear Boxes
 - Steel Mills/Paper Mills
 - Industrial Bearings
 - Heavy Duty Commercial On Road Fleets

Fifth Wheels Pins and Bushings Slack Adjusters

Kingpins Trailer Landing Gear Boxes

• Heavy Duty Off Road

DozersForkliftsCranesScrapersExcavatorsLoadersBackhoesCompactorsPaving

Cold Planers Forest Machines Articulated Trucks

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APPLICATIONS



Agriculture

 Implements
 Tractors
 Combines

 Tillage
 Hay Balers
 Mowers

 Planting and Seeding
 Harvesting
 Skid Steers

 Sprayers and Spreaders
 Utility Vehicles

• Automotive Applications

Wheel Bearings** Chassis**

**Mystik JT-6 Synthetic 460 #2 meets the NLGI Service Classification of GC-LB and displays the NLGI Certification Mark as an Automotive Wheel Bearing and Chassis Lubricant

#2

APPROVALS: SAF Holland LSZ Kingpin

• Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES

Typical Properties for Mystik JT-6 Synthetic 460:



Material Code	655451002	655427002
NLGI Grade	1	2
Thickener Type	Lithium Complex	Lithium Complex
Color	Green	Green
Texture	Smooth, Adhesive	Smooth, Adhesive
Worked Penetration, ASTM D217	310-340	265-295
Dropping Point, ASTM D2265, °F(°C)	500(260)	500(260)
Rust Prevention, ASTM D1743, Rating	Pass	Pass
Emcor Corrosion Protection, ASTM D6138, Rating	Pass	Pass
5% Synthetic Salt Water Corrosion, ASTM D5969, Rating	Pass	Pass
Water Washout, ASTM D1264, % loss @ 175°F	2.25	2
Water Spray Off, ASTM D4049, % loss	16	15
Low Temperature Torque, ASTM D4693, N-m	3	3
Four-Ball Weld, ASTM D2596, kgf	620	620
US Steel Mobility @ -10°F, gpm	-	28
Base Oil Viscosity @ 40°C, cSt	460	460
NLGI Classification, ASTM D4950	-	GC-LB

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Mystik® JT-6® Synthetic Electric Motor #2 Grease



Formerly known as CITGO® Lithoplex® EM Full Synthetic Grease

OVERVIEW



 A premium quality lithium complex grease that is optimized to provide outstanding performance in electric motor applications

FEATURES & BENEFITS



- · Outstanding wear protection.
- · Excellent oxidation resistance.
- · Protects against rust.
- · Protects against corrosion in yellow metals such as copper and brass.
- · Contains ISO 100 synthetic base oils.

APPLICATIONS



- · Provides excellent protection in electric motor applications.
- This product is suitable for use where excellent wear protection and corrosion resistance is required.
- Suitable for use in many fill for life applications where outstanding oxidation resistance is needed.
- Consult owner's manual for proper lubricant selections.

CITGO Petroleum Corporation Houston, Texas Customer Service Line 1-800-331-4068 LubesCS@CITGO.com

Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Online at www.CITGOLubes.com

Manufactured in USA

nrease

PROPERTIES



Typical Properties for Mystik JT-6 Synthetic Electric Motor #2:

Material Code	655429002
NLGI Grade	2
Thickener Type	Lithium Complex
Color	Blue
Texture	Smooth
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265, °F(°C)	500 (260)
Rust Prevention, ASTM D1743, Rating	Pass
Copper Corrosion, ASTM D4048	1a
Emcor Rating	0,1
Oil Separation, ASTM D1742, % loss	1.76
Water Washout, ASTM D1264, % loss @ 175°F	<2%
Four-Ball Wear, ASTM D2266, mm	0.4
Four-Ball Weld, ASTM D2596, kgf	400
Base Oil Viscosity @ 40°C, cSt	100
Base Oil Viscosity @ 100°C, cSt	13.87
Viscosity Index (including oil soluble additives)	127
Oil Type	Synthetic

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Customer Service Line 1-800-331-4068 Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Customer Service Email LubesCS@CITGO.com Online at www.CITGOLubes.com

Mystik® AluPlex® Plunger Greases

Formerly known as CITGO® Aluminum Complex PL Greases



OVERVIEW



- Developed with unique semi-fluid formulas to provide exceptional flow performance.
- Optimized to provide consistent lubricant flow for optimal protection of frac pump plungers.
- Properly lubricated plungers can operate at peak performance, maximizing up time.
- AluPlex Plunger Low Temp #000 is formulated for improved flow at very low temperatures.

FEATURES & BENEFITS



- Superior lubricant barrier to prevent seal failures.
- · Protects against friction and heat damage.
- Exceptional extreme pressure (EP) protection.
- Excellent anti-wear prolongs plunger life.
- · Outstanding resistance to rust and corrosion on copper and brass.
- Performs well over a wide temperature range.
- Low Temp #000 is formulated to flow well at very low temperatures.

APPLICATIONS



- For use with frac pump plungers where excellent adhesion, pumpability, corrosion resistance, wear and extreme pressure protection are needed.
- · Designed to work with automatic lubricators.
- Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES



Typical Properties for Mystik AluPlex Plunger:

Material Code	655564002	655565002	655566002
NLGI Grade	Low Temp 000	000	00
Worked Penetration, ASTM D217	445-475	445-475	400-430
Thickener Type	Aluminum Complex	Aluminum Complex	Aluminum Complex
Color	Red	Red	Red
Texture	Smooth & Adhesive	Smooth & Adhesive	Smooth & Adhesive
Copper Corrosion, ASTM D4048	1a	1b	1b
Rust Prevention, ASTM D1743	Pass	Pass	Pass
Four-Ball Weld, ASTM D2596, kgf	400	400	400
Four-Ball Wear, ASTM D2266, mm	0.52	0.49	0.60
US Steel Mobility @ 0°F, gpm	>100	_	18
Approximate Temperature Range, °F(°C)	-20 to 325 (-29 to 163)	0 to 325 (-18 to 163)	10 to 325 (-12 to 163)
Base Oil Viscosity @ 40°C, cSt	150	1000	1000

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Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Online at www.mystiklubes.com

Manufactured in USA

Mystik[®] CalSuPlex[®] 5% Moly #2 Grease

Formerly known as CITGO® UltraLife® CSEP 5M Grease



OVERVIEW



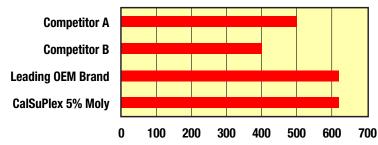
- An advanced calcium sulfonate complex grease.
- Engineered to provide outstanding EP (Extreme Pressure) performance and superior corrosion protection in a variety of high temperature applications.
- Contains 5% molybdenum disulfide (moly) for added protection and longer service life in severe applications.

FEATURES & BENEFITS



- Resists water washout and softening, while preventing corrosion in the presence of water; exceptional water resistance is very important in maintaining lubrication to the bearing or bushing.
- Exceptional EP properties go beyond the norm, providing that extra protection needed in construction, mining, paper mills and other heavy industries.
- Specially formulated to protect even the most heavily loaded joints against galling, wear and corrosion, under dry or wet working conditions.

Four-Ball Weld Load kgf (ASTM D2596 Test Method)



APPLICATIONS



- Provides excellent protection in severe applications such as construction, mining, aggregate mines, marine, forestry, pulp and paper mills, steel mills, and conveyor systems.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Online at www.mystiklubes.com

Manufactured in USA

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PROPERTIES



Typical Properties for Mystik CalSuPlex 5% Moly #2:

Material Code	655542002
NLGI Grade	2
Thickener Type	Calcium Sulfonate
Color	Gray/Black
Texture	Smooth, Adhesive
Molybdenum Disulfide, Wt.%	5
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265, °F(°C)	>500 (260)
Rust Prevention, ASTM D1743, Rating	Pass
Water Washout, ASTM D1264, % Loss @ 175°F	<2
Four-Ball Weld, ASTM D2596, kgf	620
Operating Temperature Range, °F(°C)	-25 to 300 (-32 to 150)
US Steel Mobility @ 0°F, gpm	20
Base Oil Viscosity @ 40°C, cSt	150

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Mystik® CalSuPlex® Multi-Purpose #2 Grease



Formerly known as CITGO® Calsuplex MP Grease

OVERVIEW



- Specially formulated with a calcium sulfonate thickener in premium base oils.
- Provides excellent performance in a wide variety of automotive, heavy duty, and industrial applications.
- · Provides excellent corrosion control for high moisture environments.

FEATURES & BENEFITS



- Provides superior protection against corrosion in the presence of water.
- Provides excellent extreme pressure (EP) and anti-wear protection under severe conditions.
- Provides outstanding resistance to oxidation.
- · Highly resistant to water washout.
- Meets the ASTM D4950 requirements for Wheel Bearing Grease Category GC and Chassis Grease Category LB.



APPLICATIONS



- Recommended for a wide range of automotive and industrial applications including bearings, ball joints, and bushings.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik CalSuPlex Multi-Purpose #2:

Material Code	655582002
NLGI Grade	2
Thickener Type	Calcium Sulfonate
Color	Green
Texture	Smooth, Adhesive
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265, °F(°C)	500 (260)
Rust Prevention, ASTM D1743, Rating	Pass
Water Washout, ASTM D1264, % loss @ 175°F	2.5
Low Temperature Torque, ASTM D4693, Nm	9.6
High Temperature Life, ASTM D3527, hrs.	120
Four-Ball Wear, ASTM D2266, mm	0.5
Four-Ball Weld, ASTM D2596, kgf	400
Four-Ball Load-Wear Index, ASTM D2596, kgf	57.7
Base Oil Viscosity @ 40°C, cSt	150
NLGI Classification, ASTM D4950	GC-LB

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Mystik.

Mystik® Centralized System #0-00 Grease

Formerly known as Mystik Centra-Lube™ Grease

OVERVIEW



- Designed as an anti-leak, industrial semi-fluid gear grease for industrial gearboxes and automatic, centralized lube systems where harder consistency greases are not pumpable in cold weather.
- Ideal for leaky gearboxes and difficult-to-service applications.

FEATURES & BENEFITS



- Premium-quality product containing extreme pressure (EP), antiwear, antirust, and antioxidant additives.
- · Self-leveling.
- · Excellent wear protection and load-carrying capability.
- · Outstanding water resistance protects against corrosion.

APPLICATIONS



- Recommended for centralized lubrication systems and grease-filled gear boxes.
- For use as an industrial semi-fluid grease.
- Underground mine pressure gear systems and conveyor drive gearboxes.
- Suitable as an antileak EP gear lubricant.
- · Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik Centralized System #0-00:

Material Code	665023002
NLGI Grade	0 to 00
Thickener Type	Lithium 12-Hydroxystearate
Texture	Smooth, Adhesive
Color	Amber
Worked Penetration, ASTM D217	380-410
Rust Prevention, ASTM D1743, rating	Pass
Copper Corrosion, ASTM D4048, rating	1b
Oxidation, ASTM D942, psi loss @ 100 hrs	2.5
Timken OK Load, ASTM D2509, lb.	60
Approximate Temperature Range, °F (°C)	0 to 250 (-18 to 121)
Base Oil Viscosity @ 40°C, cSt	360

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Mystik. Mystik

Mystik® Cotton Picker #00 Grease

OVERVIEW



- A unique semi-fluid formula developed to provide exceptional flow performance.
- Optimized to provide consistent flow for optimal protection of the picker spindles.
- This fluidity allows it to lubricate in tough applications.
- Properly lubricated spindles can operate at peak performance, plucking cotton from bolls without tearing.

FEATURES & BENEFITS



- Special semi-fluid, lithium-based grease that provides low friction and channeling resistance.
- Flows freely, but resists excessive leakage from spindle bearings.
- Performs well over a wide temperature range resulting in low cold-weather starting torque.
- · Soft consistency, channel resistant.
- Resists leakage from bearings, reducing cotton staining.
- Easy to dispense or pump.

APPLICATIONS



- For use in low to normal temperatures under light loads.
- Consult owner's manual for proper lubricant selection.

PROPERTIES





Material Code	665101002
NLGI Grade	00
Thickener Type	Lithium Stearate
Texture	Smooth, Short Fiber
Color	Light Green, Low-Staining
Worked Penetration, ASTM D217	400-430
Approximate Temperature Range, °F (°C)	5 to 200 (-15 to 93)
Base Oil Viscosity @ 40°C, cSt	20

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Petroleum Corporation		
Houston, Texas		

Customer Service Line
1-800-331-4068
LubesCS@CITGO.com

Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Online at www.mystiklubes.com

Manufactured in USA

Mystik® Curve Rail Greases

Formerly known as CITGO® Railroad Curve Greases



OVERVIEW



- Available as Curve Rail #1 and Curve Rail #0.
- Anhydrous calcium thickened greases formulated with graphite provide outstanding wear resistance.

FEATURES & BENEFITS



- Smooth, buttery texture provides exceptional spray characteristics.
- Flows through the applicator nozzle to provide a consistent spray which evenly coats the rail sides.
- Graphite provides outstanding wear protection.
- Anhydrous calcium thickener is extremely resistant to water, adhering to the rail, even in humid and rainy environments.

APPLICATIONS



- Curve Rail #1 stays in place in harsh summer weather.
- Curve Rail #0 provides improved flow during colder winter conditions.
- Both provide outstanding rail curve wear protection.
- · Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES



Typical Properties for Mystik Curve Rail:

	#1	#0
Material Code	655532002	655531002
NLGI Grade	1	0
Thickener Type	Anhydrous Calcium	Anhydrous Calcium
Color	Gray	Gray
Texture	Smooth, Buttery	Smooth, Buttery
Worked Penetration, ASTM D217	310-340	355-385
Solid Additives	Graphite	Graphite
Base Oil Viscosity @ 40°C, cSt	20	20

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Manufactured in USA



Mystik® General Purpose Grease

OVERVIEW



 A multi-purpose grease especially suited for normal temperature and speed conditions, non-critical service applications, and contaminating environments.

FEATURES & BENEFITS



- Water-resistant.
- · Economical.

APPLICATIONS



- · Suited for normal temperatures and speeds.
- Recommended for non-critical applications.
- · Recommended for applications requiring frequent re-greasing due to a contaminating environment.
- Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES





Material Code	665150002
NLGI Consistency Number	2
Thickener Type	Lithium Stearate
Texture	Smooth, Medium Fiber
Color	Dark Brown
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D566, °F (°C)	320 (160)
Approximate Application Temperature Range, °F (°C)	0 to 265 (-18 to 129)

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Online at www.mystiklubes.com

Manufactured in USA

Mystik® High Speed Coupling Grease

Formerly known as CITGO® Premium Coupling Grease



OVERVIEW



 Specially formulated with a lithium/polymer thickener in premium high viscosity base oils to provide excellent resistance to oil separation when used in high-speed grease lubricated couplings.

FEATURES & BENEFITS



- Exhibits very low oil separation in ASTM D4425 high-speed centrifuge test.
- Fortified with heavy base oils and a polymer additive to provide outstanding adhesion.
- High viscosity base oils are utilized to provide outstanding load carrying ability.
- This product is recommended for all types of grease lubricated couplings used in industrial equipment.
- It meets or exceeds the requirements of AGMA CG-1, CG-2 & CG-3 type coupling greases.
- · Provides outstanding resistance to oxidation.
- Highly resistant to both water washout and water spray-off.
- Formulated with a lithium/polymer thickener system that is compatible with many other coupling
 greases that are currently on the market.

APPLICATIONS



- Recommended for grease lubricated couplings including gear couplings, grid couplings, and flexible chain couplings.
- Because of its water resistance and high viscosity base oils, it may be suitable for use in applications subjected to high water wash, heavy loads, and low speeds.
- Not recommended for use in rolling element bearings.
- · Refer to equipment owner's manual for proper lubricant recommendation.

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Online at www.mystiklubes.com

Manufactured in USA

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PROPERTIES



Typical Properties for Mystik High Speed Coupling Grease:

Material Code	655231002
NLGI Grade	1
Thickener Type	Lithium/Polymer
Color	Amber
Texture	Smooth, Adhesive
Worked Penetration, ASTM D217	310-340
Dropping Point, ASTM D2265, °F(°C)	336 (169)
Rust Prevention, ASTM D1743, Rating	Pass
Copper Corrosion, ASTM D4048	1b
Centrifugal Oil Separation, ASTM D4425	<8%
Oxidation, ASTM D942, psi loss @ 100 hrs.	3
Water Spray Off, ASTM D4049, % Loss	<2%
Four-Ball Wear, ASTM D2266, mm	0.4
Four-Ball Weld, ASTM D2596, kgf	400
Four-Ball Load-Wear Index, ASTM D2596, kgf	63.4
Base Oil Viscosity @ 100°C, cSt (including oil soluble additives)	191
Base Oil Viscosity @ 40°C, cSt (including oil soluble additives)	4240
Viscosity Index (including oil soluble additives)	148

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Manufactured in USA		

Customer Service Line 1-800-331-4068 Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com

Mystik® Lithium Extreme Pressure Greases

Formerly known as CITGO® Premium Lithium EP Greases



OVERVIEW



- Thickened with premium quality lithium soap.
- Contain extreme pressure, antiwear, antioxidant and anticorrosion additives.
- Formulated with high quality mineral base oils.

FEATURES & BENEFITS



- Smooth, buttery texture provides excellent pumpability.
- High quality lithium soap provides excellent shear stability.
- Extreme pressure additive provides protection under severe conditions.
- Oxidation and corrosion inhibitors provide excellent oxidation stability and corrosion resistance.
- Versatile formulations that reduce the number of products required.
- Operating temperature range of 5 to 250°F, with peak intermittent operation up to 300°F.
- NLGI Grades 1 and 2 meet the highest performance chassis service category of ASTM D4950 and are certified NLGI LB.



APPLICATIONS



- Recommended for lubrication of both journal and anti-friction bearings.
- Suitable for metallurgical industry and general industrial machinery.
- Particularly adaptable for centralized lubrication systems and for bulk handling systems.
- Refer to equipment owner's manual for proper lubricant recommendation.

Approvals:

• NLGI Classification LB (#1 & #2)

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Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

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Manufactured in USA

PROPERTIES



Typical Properties for Mystik Lithium Extreme Pressure:

Name	#00-000	#0	#1	#2
Material Code	655771002	655210002	655211002	655212002
NLGI Grade	00-000	0	1	2
Thickener Type	Lithium	Lithium	Lithium	Lithium
Color	Dark Amber	Dark Amber	Dark Amber	Dark Amber
Texture	Buttery	Buttery	Buttery	Buttery
Worked Penetration, ASTM D217	425-455	355-385	310-340	265-295
Dropping Point, ASTM D2265, °F (°C)	-	-	350(177)	375(191)
Rust Prevention, ASTM D1743, rating	Pass	Pass	Pass	Pass
Copper Corrosion, ASTM D4048	1b	1b	1b	1b
Four-Ball Weld, ASTM D2596, kgf	250	250	250	250
Timken OK Load, ASTM D2509, lbs	40	40	40	40
NLGI Classification, ASTM D4950	-	-	LB	LB
Base Oil Viscosity @ 40°C, cSt	170	170	170	170

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Mystik® LithoPlex® 3% Moly and 5% Moly Greases



Formerly known as CITGO® Lithoplex CM and HM Greases

OVERVIEW



- These premium lithium complex greases provide outstanding protection in construction and mining applications.
- Contain molybdenum disulfide for additional protection in harsh environments.

FEATURES & BENEFITS



- Extreme pressure (EP) and anti-wear additives provide excellent extreme pressure and wear protection.
- Formulated with corrosion inhibitors to resist corrosion and extend equipment life.
- Contain oxidation inhibitors to extend the grease life and protect the application for longer periods.
- Polymeric additive improves water resistance and adhesion.

APPLICATIONS



- Recommended for construction equipment, mining equipment, fifth wheels, bucket pins, crusher bearings, pin and bushings, pivot pins, track drive rollers and industrial applications.
- Contain 3% moly and 5% moly to meet equipment manufacturer requirements.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik LithoPlex 3% Moly and 5% Moly:

Product	3% Moly #1	3% Moly #2	5% Moly #1	5% Moly #2
Material Code	655351002	655352002	655356002	655357002
NLGI Grade	1	2	1	2
Thickener Type	Lithium Complex	Lithium Complex	Lithium Complex	Lithium Complex
Color	Gray	Gray	Gray	Gray
Texture	Smooth	Smooth	Smooth	Smooth
Worked Penetration, ASTM D217	310-340	265-295	310-340	265-295
Dropping Point, ASTM 2265, °F (°C)	500(260)	500(260)	500(260)	500(260)
Rust Prevention, ASTM D1743, rating	Pass	Pass	Pass	Pass
Water Washout, ASTM D1264, % Loss @ 175°F	2.0	2.0	2.5	2.0
Molybdenum Disulfide, Wt. %	3	3	5	5
Four-Ball Wear, ASTM D2266, mm	0.45	0.45	0.40	0.40
Four-Ball Weld, ASTM D2596, kgf	400	400	500	500
Base Oil Viscosity @ 40°C, cSt (incl. oil soluble additives)	285	375	375	375

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Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com



OVERVIEW



 A premium-quality high-performance lithium complex grease designed to provide outstanding protection in wood pellet mill applications.

FEATURES & BENEFITS



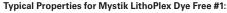
- Provides outstanding protection against wear and extreme pressure.
- Protects equipment against corrosion and passes the ASTM D1743 rust prevention test.
- · Formulated with additives that protect against oxidation and extend the lubricant life.
- · Formulated with premium quality ISO 460 base oils that make this product highly water resistant.
- Additional benefits of the high viscosity base oils include providing an outstanding barrier between the metal surfaces and giving the grease an adhesive texture that keeps the product in place.

APPLICATIONS



- · Particularly well suited for use in wood pellet mills.
- Suitable for a variety of industrial, agricultural, mining, and construction applications.
- Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES





Material Code	655435002
NLGI Grade	1
Thickener Type	Lithium Complex
Color	Amber
Texture	Smooth, Adhesive
Worked Penetration, ASTM D217	310-340
Dropping Point, ASTM D2265, °F(°C)	500 (260)
Rust Prevention, ASTM D1743, rating	Pass
Four-Ball Wear, ASTM D2266, mm	0.43
Four-Ball Weld, ASTM D2596, kgf	315
Base Oil Viscosity @ 40°C, cSt	480
Base Oil Viscosity @ 100°C, cSt	30.6
Base Oil Viscosity Index	95

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Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Online at www.mystiklubes.com

Manufactured in USA

Mystik® LithoPlex® Industrial Greases

Formerly known as CITGO® Lithoplex ST Greases



OVERVIEW



- High performance Lithium Complex greases that are industry tested to withstand high shock loads, extreme pressures and corrosive environments under a variety of mill conditions.
- High-temperature greases that provide exceptional water resistance and stability that is critical in many primary and secondary mill applications.

FEATURES & BENEFITS



- Extremely stable lithium complex formula retains its consistency even in the most severe service.
- Additives provide excellent extreme pressure (EP) and anti-wear protection under severe conditions.
- Contain heavy base oils to provide for good load and wear protection.
- Resist corrosion, thereby extending equipment life. This is of particular importance in applications where moisture is present.
- Contain oxidation inhibitors to extend grease life and protect the application for longer periods.

APPLICATIONS



- Highly recommended for use in rolling mills, work rolls, strip mills, drive u-joints and conveyer bearings.
- Also recommended for use in fifth wheels, spring pins, chassis lubrication, king pins, and universal joints.
- · Recommended for use in other industrial equipment involving frequent contact with water.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik LithoPlex Industrial:

Material Code	655366002	655367002
NLGI Grade	1	2
Thickener Type	Lithium Complex	Lithium Complex
Color	Green	Green
Texture	Smooth, Adhesive	Smooth, Adhesive
Worked Penetration, ASTM D217	310-340	265-295
Rust Prevention, ASTM D1743, Rating	Pass	Pass
Water Washout, ASTM D1264, % Loss @ 175°F	2.6	1.4
Four-Ball Wear, ASTM D2266, mm	0.42	0.40
Four-Ball Weld, ASTM D2596, kgf	500	500
Four-Ball Load-Wear Index, ASTM D2596, kgf	62	62
Timken OK Load, ASTM D2509, lbs	65	65
US Steel Mobility @ 0°F, gpm	27	13
Base Oil Viscosity @ 40°C, cSt	440	440

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Mystik® LithoPlex® Mining Greases

Mystik.

LUBRICANTS

Formerly known as CITGO® EP Mining Greases

OVERVIEW



- Extremely versatile, premium quality lithium complex greases that provide superior protection in heavy loaded applications and harsh environments.
- Formulated with high quality base oils and high performance additives.
- Contain molybdenum disulfide and proprietary additives to provide excellent protection in severe environments.

FEATURES & BENEFITS



- · Outstanding extreme pressure protection.
- Polymer fortified for improved adhesion and water resistance.
- · Protect against rust.
- Protect against wear.
- · Protect metal surfaces from air, moisture, and dirt.

APPLICATIONS



- Extreme service conditions such as those found in mining, construction, and industrial applications.
- Applications where heavy loads and dirty environments are present.
- Suitable for use in a wide variety of applications.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Online at www.mystiklubes.com

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PROPERTIES



Typical Properties for Mystik LithoPlex Mining:

Material Code	655360002	655358002
NLGI Grade	1	2
Thickener Type	Lithium Complex	Lithium Complex
Color	Gray	Gray
Texture	Smooth, Adhesive	Smooth, Adhesive
Worked Penetration, ASTM D217	310-340	265-295
Dropping Point, ASTM D2265, °F (°C)	500 (260)	500 (260)
Rust Prevention, ASTM D1743, rating	Pass	Pass
Four-Ball Weld, ASTM D2596, kgf	620	620
Four-Ball Last Non-Seizure Load, ASTM D 2596, kgf	80	80
Four-Ball Load-Wear Index, ASTM D2596, kgf	86	86
Four-Ball Wear, ASTM D2266, mm	0.51	0.52
Viscosity (Including Oil Soluble Additives)		
40°C, cSt.	384	384
100°C, cSt.	27.6	27.6
Viscosity Index	98	98

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Mystik® LithoPlex® Multi-Purpose Greases

Formerly known as CITGO® Lithoplex MP Greases

OVERVIEW



- Versatile extreme pressure (EP) lithium complex greases.
- Provide dependable performance in a broad range of applications.
- Excellent performance over a wide temperature range.
- Formulated for long life.

FEATURES & BENEFITS



- Extremely stable lithium complex formula retains its consistency even in the most severe service.
- Extreme pressure and Antiwear additives, including Molybdenum Disulfide (Moly), provide protection under severe conditions.
- Corrosion resistance protects and extends equipment life.
- Oxidation resistance extends grease life and protects equipment for longer periods.
- Meet the ASTM D4950 requirements for Wheel Bearing Category GC and Chassis Lubrication Category LB.



APPLICATIONS



- Satisfy a wide range of industrial and automotive applications.
- Particularly suitable for bearings, ball joints and bushings.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik LithoPlex Multi-Purpose:

Material Code	655341002	655340002
NLGI Grade	1	2
Thickener Type	Lithium Complex	Lithium Complex
Color	Gray	Gray
Texture	Smooth, Adhesive	Smooth, Adhesive
Worked Penetration, ASTM D217	310-340	265-295
Dropping Point, ASTM D2265, °F (°C)	500(260)	530(277)
Rust Prevention, ASTM D1743, rating	Pass	Pass
Water Washout, ASTM D1264, % Loss @ 175°F	5.0	2.0
Four-Ball Wear, ASTM D2266, mm	0.45	0.45
Four-Ball Weld, ASTM D2596, kgf	315	315
Four-Ball Load-Wear Index, ASTM D2596, kgf	58	58
Base Oil Viscosity @ 40°C, cSt	230	230
NLGI Classification, ASTM D4950	GC-LB	GC-LB

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Mystik® LithoPlex® Multi-Purpose Red #2 Grease



Formerly known as CITGO® Lithoplex Red MP Grease

OVERVIEW



- A versatile Lithium Complex grease.
- Provides long life with extreme pressure (EP) performance.

FEATURES & BENEFITS



- Extremely stable lithium complex formula retains its consistency even in the most severe service.
- Additives provide excellent extreme pressure and anti-wear protection under severe conditions.
- Resists corrosion, thereby extending equipment life. This is of particular importance in applications where moisture is present.
- Contains oxidation inhibitors to extend grease life and protect the application for longer periods.
- Meets the ASTM D4950 requirements for Wheel Bearing Grease Category GC and Chassis Grease Category LB. Labels display the NLGI Certification Mark GC-LB for Automotive Wheel Bearing & Chassis Lubricant.



APPLICATIONS



- Recommended for a wide variety of applications including automotive chassis and wheel bearings, industrial plain and rolling element bearings.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik LithoPlex Multi-Purpose Red #2:

Material Code	655387002
NLGI Grade	2
Thickener Type	Lithium Complex
Color	Red
Texture	Smooth, Adhesive
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265, °F(°C)	500 (260)
Rust Prevention, ASTM D1743, Rating	Pass
Water Washout, ASTM D1264, % Loss @ 175°F	1.4
Four-Ball Weld, ASTM D2596, kgf	315
Four-Ball Load-Wear Index, ASTM D2596, kgf	43
Four-Ball Wear, ASTM D2266, mm	0.43
Base Oil Viscosity @ 40°C, cSt (including oil soluble additives)	205
NLGI Classification, ASTM D4950	GC-LB

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Mystik® LithoPlex® Pellet Mill #2 Grease

Formerly known as CITGO® Lithoplex PM Grease



OVERVIEW



- Designed to provide outstanding performance in industrial applications.
- Provides excellent protection in severe applications of plain and rolling bearings that operate
 in mild to high temperatures.

FEATURES & BENEFITS



- This product provides excellent protection in applications where high loads exist.
- Provides superior protection in applications where metal to metal friction exists.
- · Polymer fortified for improved adhesion and resistance to water.
- · Corrosion inhibitor protects equipment from corrosion.

APPLICATIONS



- Recommended for industrial applications where outstanding wear protection, water resistance, corrosion resistance, and extreme pressure protection are required.
- This product provides excellent protection in severe applications of plain and rolling bearings that
 operate in mild to high temperatures.
- · Recommended for rolling element bearings in pellet mills.
- · Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES





Material Code	655437002
NLGI Grade	2
Thickener Type	Lithium Complex
Color	Red
Texture	Smooth, Adhesive
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265, °F(°C)	500 (260)
Rust Prevention, ASTM D1743, rating	Pass
Water Washout, ASTM D1264, % loss @ 100°F	2.5
Four-Ball Wear, ASTM D2266, mm	0.48
Timken OK Load, ASTM D2509, lbs	80
Base Oil Viscosity @ 40°C, cSt	155

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Online at www.mystiklubes.com

Manufactured in USA

Mystik® LithoPlex® Plunger 320 Greases

Formerly known as CITGO® Lithoplex PL Greases



OVERVIEW



- Lithium Complex greases designed to provide consistent lubricant flow for optimal protection of frac pump plungers.
- Developed with unique semi-fluid formulas to provide exceptional flow performance.
- Properly lubricated plungers can operate at peak performance, maximizing up time.

FEATURES & BENEFITS



- Superior lubricant barrier to prevent seal failures.
- · Protects against friction and heat damage.
- Exceptional extreme pressure (EP) protection.
- Excellent anti-wear performance prolongs plunger life.
- Outstanding resistance to rust and corrosion on copper and brass.
- Performs well over a wide temperature range.

APPLICATIONS



- For use with frac pump plungers where excellent adhesion, pumpability, corrosion resistance, wear and extreme pressure protection are needed.
- Designed to work with automatic lubricators.
- Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES



Typical Properties for Mystik LithoPlex Plunger 320:

Material Code	655538002	655539002
NLGI Grade	000	00
Thickener Type	Lithium Complex	Lithium Complex
Color	Green	Green
Texture	Smooth, Short Fiber	Smooth, Short Fiber
Worked Penetration, ASTM D217	445-475	400-430
Four-Ball Weld, ASTM D2596, kgf	315	315
Four-Ball Wear, ASTM D2266, mm	0.40	0.40
Copper Corrosion, ASTM D4048	1a	1a
Rust Prevention, ASTM D1743, Rating	Pass	Pass
US Steel Mobility @ 0°F, gpm	77	71
Approximate Temperature Range, °F(°C)	0 to 325 (-18 to 163)	0 to 325 (-18 to 163)
Base Oil Viscosity @ 40°C, cSt	320	320

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Online at www.mystiklubes.com

Manufactured in USA

Mystik® LithoPlex® Power Tool #2 Grease

Mystik.

LUBRICANTS

Formerly known as CITGO® Lithoplex PTG Grease

OVERVIEW



- An excellent choice for the lubrication of bearings and gears found in power tools.
- A high-quality grease that ensures peak performance of the tool in prolonged industrial or construction applications.
- Proper lubrication not only extends the effective service life of the tool, but also improves the operating efficiency.
- Has the ability to resist sudden stress, sustain performance, and absorb shock loads without losing the ability to lubricate gears and bearings effectively.

FEATURES & BENEFITS



- · Long life.
- Improved tool efficiency.
- Extreme pressure and anti-wear protection.
- · Low bleed solution.
- · Excellent film strength.
- · Heat resistant.
- · Excellent thermal oxidation stability.

APPLICATIONS



- Satisfies a wide range of industrial and home tool applications, lubricating bearings and gears.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik LithoPlex Power Tool #2:

Material Code	655572002
NLGI Grade	2
Thickener Type	Lithium Complex
Color	Amber
Texture	Smooth, Tacky
Worked Penetration, ASTM D217	265-295
Rust Prevention, ASTM D1743, Rating	Pass
Copper Corrosion, ASTM D4048	1a
Four-Ball Weld, ASTM D2596, kgf	315
Four-Ball Wear, ASTM D2266, mm	0.54
Timken OK Load, ASTM D2509, lb.	45
Oil Separation, ASTM D1742	Nil
Base Oil Viscosity @ 40°C, cSt (including oil soluble additives)	630

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Mystik® LithoPlex® Red Tacky Greases

Formerly known as CITGO® Lithoplex RT Greases



OVERVIEW



- Premium-quality lithium complex greases suited for a wide variety of industrial and automotive service
 applications including chassis and wheel bearings.
- These extreme pressure greases are recommended for use across several industries that include on-road, off-road and industrial applications.

FEATURES & BENEFITS



- Extremely stable lithium complex formula retains its consistency even in the most severe service.
- Additives provide excellent extreme pressure (EP) and anti-wear protection under severe conditions.
- Resist corrosion, thereby extending equipment life. This is of particular importance in applications where moisture is present.
- Oxidation inhibitors extend grease life and protect the application for longer periods.
- Their red color and tacky, moly-free formulas make them ideal for many problem applications.
- Meet the ASTM D4950 requirements for Wheel Bearing Category GC and Chassis Lubrication Category LB.



APPLICATIONS



- Provide excellent performance in applications where good adhesion and water resistance are critical.
- Excellent for use in many industrial, agricultural, and automotive applications.

Approvals: Mack MG-C

• Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES

Typical Properties for Mystik LithoPlex Red Tacky:



Material Code	655343002	655344002
NLGI Grade	1	2
Thickener Type	Lithium Complex	Lithium Complex
Color	Red	Red
Texture	Smooth, Adhesive, Buttery	Smooth, Adhesive, Buttery
Worked Penetration, ASTM D217	310-340	265-295
Dropping Point, ASTM D2265, °F(°C)	500 (260)	530 (277)
Rust Prevention, ASTM D1743, Rating	Pass	Pass
Water Washout, ASTM D1264, % Loss @ 175°F	5.3	2.0
Four-Ball Wear, ASTM D2266, mm	0.42	0.42
Four-Ball Weld, ASTM D2596, kgf	250	250
Four-Ball Load-Wear Index, ASTM D2596, kgf	48	48
Base Oil Viscosity @ 40°C, cSt (including oil soluble additives)	500	500
NLGI Classification, ASTM D4950	GC-LB	GC-LB

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Mystik® Open Gear #1.5 Grease

Formerly known as Mystik OG-5 Outside Gear Grease



OVERVIEW



- A premium, high-performance open-gear lubricant that provides exceptional protection of heavily loaded open gears exposed to a wide range of operating conditions.
- Provides exceptional extreme pressure and antiwear protection, with excellent water resistance, and operates over a wide range of operating temperatures.

FEATURES & BENEFITS



- Unique formula meets the challenges of lubricating a wide range of exposed gears operating in extremely challenging environments.
- Tough film strength protects mating surfaces against damaging wear, providing longer life for protected parts and reducing surface damage and associated maintenance.
- Provides exceptional antiwear protection and extreme pressure resistance.
- High adhesion and tackiness to metal surfaces provides stay-in-place performance, water resistance, and protection against corrosion.
- Engineered to provide a wide operating temperature range.
- Solvent-free.

APPLICATIONS



- Suitable for use in mills, shovels, draglines, and ring and pinion gears.
- Also recommended for marine applications, guide rails, fifth wheels, slideways, swing gears, conveyor
 equipment, winch trucks, track rollers, drive rollers, chains, flanges, and many other types of open
 or outside gearing found in construction and plant machinery.
- Can be applied by a variety of methods, including gun, brush, swab, and pump.
- Refer to equipment owner's manual for proper lubricant recommendation.
- Refer to SDS for special handling instructions.

WARNING: Avoid contact with eyes, skin and clothing. IF IN EYES: Rinse cautiously with water for several minutes.

NOTE: Not for rolling element bearings. May be difficult to apply where temperatures are below 32°F.

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PROPERTIES



Typical Properties for Mystik Open Gear #1.5:

Material Code	665035002
NLGI Grade	1.5
Thickener Type	Lithium Stearate Soap
Texture	Smooth, Stringy
Solid Additives	Moly Disulfide & Graphite
Color	Black/Dark Brown
Worked Penetration, ASTM D217	285-315
Dropping Point, ASTM D2265, °F (°C)	300 (149)
Rust Prevention, ASTM D1743, rating	Pass
Timken OK Load, ASTM D2509, lb.	45
Four-Ball Load Wear Index, ASTM D2596	57
Four-Ball Weld, ASTM D2596, kgf	500
Base Oil Viscosity @ 40°C, cSt	1570

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Mystik® Railroad Traction Motor Gear Grease



Formerly known as CITGO® Jet Lubricant TM

OVERVIEW



- A quality, soap-thickened petroleum resin-based compound for use as a traction motor gear lubricant in heavy duty, high speed locomotive gear boxes.
- Provides an adhesive film that protects gears under heavy loads.

FEATURES & BENEFITS



- Formulated with petroleum resins to ensure good adhesion.
- Available in drums and one-pound polyethylene bags for ease of application.

APPLICATIONS



- Excellent for various open and closed gear cases and certain slow-moving open gears used throughout the industry.
- Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES





Material Code	655780002
Thickener Type	Sodium
Texture	Tacky
Color	Dark Brown
Brookfield Viscosity @ 200°F, cP	6,500-8,000
Timken OK Load, ASTM D2509, lbs	40
Four-Ball Weld, ASTM D2596, kgf	250
Four-Ball Load-Wear Index, ASTM D2596, kgf	38

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Online at www.mystiklubes.com

Manufactured in USA

Mystik® JT-9® LeakShield™AW Hydraulic Oils



OVERVIEW



- Premium-quality antiwear, antileak, and antifoam hydraulic oils formulated for use in modern high- and low-pressure industrial and mobile hydraulic systems.
- A fully synthetic seal swell agent prevents and stops minor leaks and provides longer seal life.

FEATURES & BENEFITS



- Solvent-refined paraffinic, high viscosity index base oils with low pour points for wide temperature range applicability.
- Excellent oxidation resistance and thermal stability.
- · Good water separation characteristics.
- · Outstanding rust and corrosion inhibition for enhanced service life.
- · Dyed green for ease of identification.

APPLICATIONS



- Highly recommended for bearings and gears which require a rust and oxidation (R&O) or R&O/ AW hydraulic oil and hydraulic circuit components including valves, motors, servos, and pumps.
- May be used in applications where general non-detergent type or R&O inhibited oils are applicable.
- · Suitable for use in vacuum pumps.
- May be used as API GL-1 gear lubricants where viscosity is suitable.
- HVI-32 meets FMC Corporation recommendations for a high viscosity index hydraulic fluid.
- · Meet or exceed:
 - ASTM D6158 HM (2018)
 - Fives Cincinnati P-68, 69, 70
 - Parker Denison HF-0
 - DIN 51524-2 (2017)
 - DIN 31324-2 (2017)
 - Eaton Brochure 03-401-2010General Motors LS-2 (2004)
 - JMCAS HK P041 (2004)
 - ISO 11158 HM (FDIS 2009)
 - SEB 18 22
 - US Steel 126, 127, 136
- HVI-32 and HVI-68 are guaranteed to have a dielectric strength of no less than 28 kV when packaged and can be used as nonconductive hydraulic oils.

Note: Dielectric strength is extremely sensitive to humidity and contamination. Once the containers are opened, the dielectric strength cannot be expected to remain at its original value. Containers should be kept tightly sealed and stored in a dry environment.

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Typical Properties for Mystik JT-9 LeakShield AW Hydraulic Oils:

Material Code	663303002	663304002	663305002	663306002	663312002	663314002
Designation					HVI-32	HVI-68
ISO Viscosity Grade	32	46	68	100	32	68
Gravity, °API ASTM D4052	32.3	31.3	30.8	30.1	33.5	31.0
Density, lb/gal at 60°F	7.19	7.24	7.26	7.29	7.14	7.25
Specific Gravity @ 60°F ASTM D1298	0.864	0.870	0.872	0.875	0.857	0.8771
Brookfield Viscosity ASTM D2983						
at -23.3°C, cP	_	_	_	_	1,925	9,100
at -35°C, cP	_	_	_	_	16,700	_
Viscosity ASTM D445						
at 40°C, cSt	32.5	46.0	68.0	98.2	31.6	68.0
at 100°C, cSt	5.55	6.92	9.0	11.5	6.61	10.8
Viscosity Index ASTM D2270	108	106	107	105	172	149
Appearance, Color	Green	Green	Green	Green	Green	Green
Flash Point, COC, °F (°C), ASTM D92	435(224)	435(224)	468(242)	471(244)	417(214)	453(234)
Pour Point, °F (°C) ASTM D97	-22(-30)	-22(-30)	-11(-24)	+5(-15)	-33(-36)	-27(-33)
Neutralization Number						
(TAN) ASTM D664	0.5	0.5	0.5	0.5	0.5	0.5
Rust Test, ASTM D665						
A - Distilled Water	Pass	Pass	Pass	Pass	Pass	Pass
B - Synthetic Sea Water	Pass	Pass	Pass	Pass	Pass	Pass
Foam Test, ASTM D892,						
Sequence I, II, III	Pass	Pass	Pass	Pass	Pass	Pass
Oxidation Test, hrs. ASTM D943	6,000	6,000	5,000	3,600	4,200+	3,500+
Meets Denison HF-0 Requirements	Yes	Yes	Yes	Yes	Yes	Yes
Meets Eaton Brochure-03-401-2010	Yes	Yes	Yes	Yes	Yes	Yes
Dielectric Strength, kV	_	_	_	_	35	35

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Mystik® Anti-Leak Industrial Oil



OVERVIEW



- A very wide temperature range, multiple viscosity grade oil specially treated for maximum leakage resistance.
- May be used as a combination replacement for individual ISO 46, 68, and 100 grade hydraulic fluids.

FEATURES & BENEFITS



- Fortified with antiwear, antifoam, antirust, and antioxidant stabilizer additives for long life.
- Contains a special anti-splatter additive for splash resistance and a slower drip-off rate.

APPLICATIONS



- Primarily used as a combination replacement for individual grade hydraulic fluids.
- May also be used as a medium viscosity way oil, a winter rock drill oil, a 'non-drip' general purpose shop oil, and as a circulating oil for gears and bearings.

PROPERTIES





Material Code	663300002
ISO Grade	100 (Recommended for 46, 68, 100)
SAE Grade	15W-40
Gravity, °API ASTM D4052	30.1
Density, lb/gal @ 60°F	7.29
Viscosity ASTM D445	
at 40°C, cSt	92.7
at 100°C, cSt	12.9
Viscosity Index ASTM D2270	137
Flash Point, COC, °F(°C) ASTM D92	400 (204)
Pour Point, °F (°C) ASTM D97	-30 (-34)
Appearance, Color	Aqua Blue

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Manufactured in USA

Mystik® Hydraulic Jack Oil



OVERVIEW



A low-viscosity fluid providing extra-low friction in hand- or foot-operated hydraulic systems.

FEATURES & BENEFITS



- Treated with antirust, antiwear, antioxidant, and antifoam additives
- Low viscosity reduces pumping effort required and allows jack to close rapidly and completely when released.
- Provides rust, wear, and oxidation protection and foam resistance.
- Contains oils with low wax content and low aniline point for a naturally low pour point and seal swell/softening to retard leakage.
- Easy-to-use package with pour spout.

APPLICATIONS





• Can also serve as a high-speed spindle oil and as a low-temperature lubricant.

PROPERTIES



Typical Properties for Mystik Hydraulic Jack Oil:

Material Code	663321002
ISO Grade (Approx.)	22
Gravity, °API @ 60°F ASTM D4052	25
Density, lb/gal at 60°F	7.53
Specific Gravity at 60°F ASTM D1298	0.9042
Viscosity ASTM D445	
at 40°C, cSt	21.5
at 100°C, cSt	3.8
Viscosity Index ASTM D2270	32
Flash Point, COC, °F (°C) ASTM D97	315 (157)
Pour Point, °F (°C) ASTM D97	-50 (-46)
Color	Red

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Mystik® Terra® 340 Gas Engine Oils



OVERVIEW



- High-quality lubricants compounded with a low-ash detergent and an ashless dispersant, as well
 as oxidation and corrosion inhibitors.
- Specially formulated for four-cycle naturally aspirated and turbocharged natural gas/LPG fueled engines.

FEATURES & BENEFITS



- Low-ash detergent and ashless dispersant formulation provides excellent deposit control for ports, spark plugs, and combustion chambers.
- Contain no bright stock which can cause carbon buildup in combustion chambers and engine ports.
- Inhibited against rust, corrosion, oxidation, nitration, and wear.
- · Superior anti-wear protection for piston rings and cylinder liners
- · Low-phosphorus chemistry for catalyst compatibility.

APPLICATIONS



- Use where low-ash oils are permitted in low-, medium-, or high-speed four-cycle engines.
- Recommended for use in high-speed four-cycle industrial engines such as Caterpillar, Cummins, Dresser-Rand (Ingersoll-Rand) Category I and II, Superior, Waukesha, and Worthington.
- · Not recommended for LPG or CNG conversions in automotive service.
- Consult equipment manufacturer for proper lubricant selection.

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Typical Properties for Mystik Terra 340 Gas Engine Oils:

Material Code	663047002	663048002	66304500
SAE Grade	30	40	15W-40
Gravity, ASTM D4052, °API	30.0	30.5	30.6
Pounds/Gallon at 60°F	7.30	7.28	7.27
Specific Gravity at 60°F	0.876	0.8735	0.873
Viscosities:			
at 40°C, cSt	88	118	101.5
at 100°C, cSt	11.0	13.5	13.8
Viscosity Index	111	111	137
Flash Point, ASTM D92, COC, °F (°C)	466 (241)	511(266)	439 (226)
Pour Point ASTM D97, °F (°C)	-38 (-39)	-27(-33)	-38 (-39)
Color, ASTM D1500	L2.0	L2.0	L2.0
Sulfated Ash, ASTM D872, wt %	0.4	0.4	0.4
Total Base Number, ASTM D2896, mg KOH/g	5.0	5.0	5.0
Total Acid Number, ASTM D664, mg KOH/g	1.07	1.07	1.07

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Mystik® Terra® 500 Gas Engine Oil SAE 15W-50



OVERVIEW



- A premium-quality lubricant compounded with a low-ash detergent and an ashless dispersant, as well as oxidation and corrosion inhibitors.
- Specially formulated for four-cycle naturally aspirated and turbocharged natural gas/LPG fueled
 engines where an SAE 15W-50 viscosity grade is suitable for use.

FEATURES & BENEFITS



- Excellent inhibition of oxidation and nitration for protection against oil thickening, plus outstanding viscosity control.
- Superior antiwear protection.
- · High flash point from low-volatility base stocks.
- High viscosity index and low pour point for year-round performance.
- Suitable for use with catalytic converters.

APPLICATIONS



- Use where low-ash oils are permitted in low-, medium-, or high-speed four-cycle engines.
- Recommended for use in high-speed, four-cycle industrial engines such as Caterpillar, Fairbanks-Morse, Superior, and Waukesha.
- Not recommended for LPG or CNG conversions in automotive service.
- Consult equipment manufacturer for proper lubricant selection.

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Typical Properties for Mystik Terra 500 Gas Engine Oil SAE 15W-50:

Material Code	663051002
SAE Grade	15W-50
Gravity, ASTM D4052, °API	31.4
Pounds/Gallon at 60°F	7.24
Specific Gravity	
at 60°F	0.869
at 40°C, cSt	143
at 100°C, cSt	18.5
Viscosity Index	152
Flash Point, ASTM D92, COC, °F (°C)	424 (218)
Pour Point ASTM D97, °F (°C)	-38 (-39)
Color, ASTM D1500	L2.0
Sulfated Ash, ASTM D872, wt %	0.45
Total Base Number, ASTM D2896, mg KOH/g	5.0
Total Acid Number, ASTM D664, mg KOH/g	1.4

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Mystik[®] Terra[®] Free Ashless Gas Engine Oils



OVERVIEW



 Premium-quality, specially formulated ashless lubricants compounded with a detergent and an ashless dispersant, as well as oxidation and corrosion inhibitors.

FEATURES & BENEFITS



- Superior ashless technology provides deposit control for ports, pistons, spark plugs, and combustion chambers.
- Contain no bright stock, which can cause carbon build-up in combustion chambers and engine ports.
- Ashless dispersant provides superior control of oil thickening.
- Excellent inhibition of oxidation and nitration for protection against oil thickening, plus outstanding viscosity control.
- Superior anti-wear, scuffing, and corrosion protection.
- · High flash point from low-volatility base stocks with low carbon-forming tendencies.
- · High viscosity index and low pour point for year-round performance.

APPLICATIONS



- Suitable for use in 2-stroke engines where ashless oil is recommended, such as Ajax, Clark, Cooper-Bessemer, Worthington, and Fairbanks-Morse.
- Not recommended for LPG or CNG conversions in automotive service.
- Highly recommended for all natural gas and propane powered engines which specify an ashless engine oil.
- · Consult equipment manufacturer for proper lubricant section.

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Typical Properties for Mystik Terra Free Ashless Gas Engine Oils:

Material Code	663056002	663057002	663055002
SAE Grade	30	40	15W-40
Gravity, ASTM D4052, °API	30.1	30.8	31.6
Pounds/Gallon at 60°F	7.29	7.29	7.23
Specific Gravity at 60°F	0.875	0.872	0.867
Viscosities:			
at 40°C, cSt	85	117	103
at 100°C, cSt	10.8	13.4	14.0
Viscosity Index	110	111	137
Flash Point, ASTM D92, COC, °F (°C)	496 (258)	504 (262)	457 (236)
Pour Point ASTM D97, °F (°C)	-33 (-36)	-27(-33)	-38 (-39)
Color, ASTM D1500	L1.0	L1.0	L1.0
Sulfated Ash, ASTM D872, wt %	0.06	0.06	0.06
Total Base Number, ASTM D2896, mg KOH/g	0.8	0.8	0.8
Total Acid Number, ASTM D664, mg KOH/g	0.2	0.2	0.2

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Mystik® Terrasyn™ Irrigation Engine Oil



OVERVIEW



 A synthetic SAE 15W-40 oil for stationary natural gas engines, specially formulated to provide lubrication in engines that have been converted to natural gas fuel, such as those in LP and agricultural irrigation pump service.

FEATURES & BENEFITS



- Designed for added anti-wear protection for the valve train.
- Enhanced valve train protection compared to conventional stationary natural gas engine oils.
- Improved top-end start up lubrication, especially in colder environments.
- · Excellent extended drain capability, providing savings in downtime, work man-hours, and oil usage.

APPLICATIONS



- For use in engines that have been converted to natural gas fuel, such as those in LP and agricultural
 irrigation pump service.
- Consult equipment manufacturer for proper lubricant selection.

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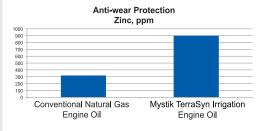
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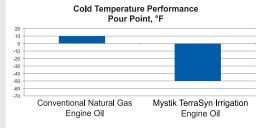


Typical Properties for Mystik Terrasyn Irrigation Engine Oil:

Material Code	663061002
SAE Grade	15W-40
Gravity, ASTM D4052, °API	31.6
Density, lbs/gal	7.22
Flash Point, ASTM D92 (COC), °F (°C)	489 (254)
Viscosity, ASTM D445	
cSt at 40°C	107
cSt at 100°C	15.1
Viscosity Index, ASTM D2270	147
CCS Viscosity, ASTM D5293	
cP at -20°C	5,340
cP at -25°C	9,300
MRV Viscosity, ASTM D4684	
cP at -25°C	10,700
Pour Point, ASTM D97, °F (°C)	-49 (-45)
Color, ASTM D1500	L3.0
Sulfated Ash, ASTM D874, m%	0.45
TBN, ASTM D2896	5.0
Zinc, ppm	900

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Houston, Texas
Manufactured in USA

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Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com

Mystik® Bar and Chain Lubricant



OVERVIEW



- A highly functional oil used on chain saws for suppressing dust, reducing friction and protecting the chain links, rivets, and bar from wear, heat, and corrosion.
- A great choice for loggers, as well as home and ranch users.
- Utilizes special components to reduce wear, guard against rust, and enhance metal adhesion to reduce spatter.

FEATURES & BENEFITS



- Designed for use over a wide temperature range. Clings in summer. Flows in winter.
- Lubricates and cools chain to maintain proper chain length and prolong cutter sharpness.
- · Polymer additive controls spatter.
- Guards against rust.
- Protects against rivet wear.

APPLICATIONS



For use in all brands of chain saws.

NOTE: NOT FOR USE IN ENGINES! Use Mystik JT-4® 2-Cycle Lawn and Garden Engine Oil, Material Code 663091002, where 2-cycle engine oil is specified.

PROPERTIES



Typical Properties for Mystik Bar and Chain Lubricant:

Material Code	663605002
SAE Grade	30
ISO Viscosity Grade	100
Gravity, °API ASTM D4052	30
Pounds/Gallon @ 60°F	7.3
Flash Point, COC, °F (°C) ASTM D92	295 (146)
Pour Point, °F (°C) ASTM D97	-40 (-40)
Viscosity ASTM D445	
cSt at 40°C	90
cSt at 100°C	11
Appearance, Color	Dark Amber

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Manufactured in USA

Mystik® Rock Drill Oil 150



OVERVIEW



 Formulated to provide excellent extreme pressure (EP) and antiwear performance in heavy duty pneumatic tools.

FEATURES & BENEFITS



- Excellent EP and antiwear performance.
- Emulsifies for extra lubricity in moist or wet conditions.
- Tackiness reduces splatter and enhances non-drip properties.
- Low pour point enables excellent performance in extremely cold temperatures.
- Provides outstanding rust and corrosion protection.

APPLICATIONS



- Recommended for rock drills, jackhammers, and other pneumatic tools requiring premium performance lubrication.
- Recommended for industrial and mining equipment working in humid or wet conditions.
- Can be used as a way oil in industrial slideway or non-drip oil applications.
- · Refer to equipment owner's manual for proper lubricant recommendation.

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Typical Properties for Mystik Rock Drill Oil 150:

Material Code	663814002
ISO Viscosity Grade	150
SAE Viscosity Grade (Approx.)	40
Gravity, °API ASTM D4052	29.1
Density, lb/gal @ 60°F	7.34
Flash Point, COC, °F (°C) ASTM D92	475 (246)
Pour Point, °F (°C) ASTM D97	-38 (-39)
Viscosity ASTM D445	
cSt at 40°C	146
cSt at 100°C	15.5
SUS at 100°F	764
SUS at 210°F	81.73
Viscosity Index ASTM D2270	115
Color, ASTM D1500	L0.5
Timken OK Load, lbs. ASTM D2782	60
Falex Load, lbs. ASTM D3233A	2100
Four Ball EP Test, Weld, ASTM D2783, kgf	250
Four Ball Wear, ASTM D4172B: 1200 RPM; 40kg; 75°C; 1 hour, Wear Scar, mm	0.42
Rust Test, ASTM D665 A&B	Pass
Copper Corrosion, ASTM D130; 3 hours at 100°C	1b

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Mystik® Tool Joint Compound #1

Formerly known as Mystik Tuff-Torg EG®



OVERVIEW



- A modern, highly advanced, high-pressure tool joint compound with proven performance.
- An environmentally conscious product that has been formulated to provide a superior level of performance while imparting minimal environmental impact.

FEATURES & BENEFITS

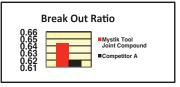


- Proprietary non-metallic additive system provides an environmentally conscious alternative to API thread compounds containing detrimental metal compounds such as lead, zinc, or antimony, without compromising performance.
- Break Out Ratio performance rivals that of thread compounds that contain 60% lead.
- Reported by customers to be field-proven to provide superior lubricity and blowout prevention in wells drilled to depths of 12,000 feet.
- Utilizes an additized lithium stearate thickener for improved thread adhesion and exceptional sealing properties.
- · Prevents and reduces leaks and washout.
- Applies easily over a range of temperatures and conditions.
- Will not harden or bleed excessively in storage.
- Provides exceptional anti-weld performance.

APPLICATIONS



- Excellent for use as a storage compound for pipe yards, drill collar compound, and production tube thread compound.
- Raisebore drilling DI-22 Rotary Shouldered Connections.



BOR on 10.25 MTI 315 Pipetik



Reverse Bore Head



Drill Stem Pipe Thread

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Typical Properties for Mystik Tool Joint Compound #1:

Material Code	665053002
NLGI Grade	1
Thickener Type	Lithium Stearate
Texture	Coarse/Granular
Color	Dark Brown
Specific Gravity @ 77°F	1.12
Unworked Penetration, ASTM D217	310-340
Dropping Point, ASTM D2265, °F (°C)	290 (143)
Brushability, °F (°C)	To 40 (4.4)
Four-Ball Wear, ASTM D2266, mm	0.40
Four-Ball Weld, ASTM D2596, kgf	500
Four-Ball Load-Wear Index, ASTM D2596, kgf	50

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Mystik® Turbine Drip Oil



OVERVIEW



 Lubricates dripper lubrication systems for irrigation water well line shaft bearings where a food grade product is NOT required.

FEATURES & BENEFITS



• Formulated with highly refined lubricating base oils and a foam suppressant.

APPLICATIONS



NOTE: This lubricant is not recommended for use where a food grade quality lubricant is required. This product should not be used for potable water well pump lubrication. It is the user's responsibility to ensure proper selection of lubricating oil for agricultural irrigation and related systems; refer to applicable regulatory agency requirements.

PROPERTIES





Material Code	663435002
SAE Grade	10W
ISO Grade	32
Gravity, °API ASTM D4058	34
Density, lb/gal at 60°F	7.1
Specific Gravity @ 60°F ASTM D1298	0.85
Viscosity, Brookfield @ -25°C, cP ASTM D2893	6400
Viscosity ASTM D445	
cSt at 40°C	32
cSt at 100°C	5.2
SUS at 100°F	150
SUS at 210°F	42.4
Viscosity Index ASTM D2270	108
Flash Point, COC, °F (°C) ASTM D92	380 (193)
Pour Point, °F (°C) ASTM D97	-38 (-39)
Color, ASTM D1500	0.5

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Manufactured in USA

Mystik® ViscidLube® Oil Treatment



OVERVIEW



- A special polymer-rich treatment to help reduce oil consumption problems.
- May be added to crankcase of warm, running engine, using 8-16 ounces of Mystik ViscidLube to 4 quarts of motor oil. DO NOT OVERFILL CRANKCASE.

FEATURES & BENEFITS



- Builds high-temperature viscosity with little effect on low-temperature fluidity and cold-weather start-up.
- Contains effective antiwear and antioxidant additives.
- Compatible with conventional and synthetic motor oils for gasoline and diesel engines.
- · Excellent adherence to metal.
- Increases oil pressure while abating oil leakage and consumption.
- Good shear stability (resistance to viscosity loss in service).
- Provides additional antiwear and antioxidation protection to prevent wear and deposits on cams, lifters, pistons, rings, and bearings.

APPLICATIONS



- Add to crankcase of warm, running engine, using 8-16 ounces of Mystik ViscidLube to 4 quarts of motor oil. DO NOT OVERFILL.
- Use neat or mixed with 50% motor oil in engine repair and assembly as a pre-lubricant to protect critical parts and help with parts positioning.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Typical Properties for Mystik ViscidLube Oil Treatment:

Material Code	663618002
Gravity, °API ASTM D4052	32.0
Density, lb/gal @ 60°F	7.21
Specific Gravity @ 60°F ASTM D1298	0.8655
Viscosity ASTM D445	
cSt at 40°C	9757
cSt at 100°C	805
Viscosity Index ASTM D2270	297
Flash Point, COC, °F (°C) ASTM D92	350 (177)
Pour Point, °F (°C) ASTM D97	0 (-18)
Color, ASTM D1500	2.0

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Mystik® Non-Detergent General Purpose Oils



OVERVIEW



 Designed for use in non-critical applications where a general purpose oil is desired, including low-pressure hydraulic systems such as hydraulic jacks and air compressors requiring a non-detergent type lubricant.

FEATURES & BENEFITS



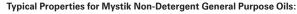
Available in SAE 10W, 20W-20, 30 and 40 viscosity grades.

APPLICATIONS



- For use in low-pressure hydraulic systems and compressors where a non-detergent lubricant is required.
- Not recommended for use in gasoline or diesel engines.
- Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES





Material Code	663111002	663112002	663113002	663103002
SAE Grade	10W	20W-20	30	40
ISO Grade (Approx.)	32	68	100	150
Density, lb/gal at 60°F (Approx.)	7.54	7.6	7.65	7.6
Viscosities (Approx.):				
cSt at 100°C	5.0	8.0	11	14.0
cSt at 40°C	29	62	119	154
SUS at 210°F	44	54	_	_
SUS at 100°F	165	340	_	_
Viscosity Index	95	95	95	90
Flash Point, ASTM D92, °F (°C)	380 (193)	395 (202)	425 (218)	430 (221)
Pour Point, ASTM D97, °F (°C)	-25 (-32)	-10 (-23)	-5 (-20)	0 (-18)

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Online at www.mystiklubes.com

Manufactured in USA

Mystik® Ammonia Compressor Oil 68



OVERVIEW



- Blended from high-quality naphthenic base oils to meet the performance requirements of ammonia refrigeration compressors.
- Offers the stability and low-temperature characteristics necessary for the proper lubrication of ammonia refrigeration compressors; will not 'wax out' under the conditions typically encountered in these systems.

FEATURES & BENEFITS



- Chemically and thermally stable under the conditions normally encountered in ammonia refrigeration systems.
- Low pour point to meet the low-temperature conditions of ammonia compressors.
- High flash point from low volatility base stocks to reduce vaporization at discharge temperatures and pressures.
- · Equipment lines and refrigerant control devices stay clear and system efficiency is not impaired.
- Satisfies the low-temperature requirements of all but the most extreme low-temperature applications.
- Available in ISO viscosity grade 68, as required by most ammonia compressor manufacturers.

APPLICATIONS



- · For use in ammonia refrigeration compressors.
- Not recommended for use with hydrofluorocarbons (HFC) such as R-134A.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Typical Properties for Mystik Ammonia Compressor Oil 68:

Material Code	663346002
ISO Viscosity Grade	68
Gravity, °API @ 60°F ASTM D4052	23.5
Density @ 60°F, lb/gal	7.61
Specific Gravity @ 60°F ASTM D1298	0.913
Flash Point, COC, °F (°C) ASTM D92	380 (193)
Viscosity ASTM D445	
cSt at 40°C	64.1
cSt at 100°C	7.3
cSt (SUS) at 100°F	72.3 (335.5)
cSt (SUS) at 210°F	7.6 (51.0)
Viscosity Index ASTM D2270	63
Pour Point, °F (°C) ASTM D97	-40 (-40)
Color, ASTM D1500	2.0

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Mystik® JT-8® Premium Gasoline Motor Oils



OVERVIEW



- Advanced, fuel-efficient synthetic blend formulas exceed the latest warranty requirements of car manufacturers for gasoline engines and meet the latest API Performance and Resource Conserving ratings.
- Premium detergent/dispersant formulations guard against sludge, reduce deposits, and protect against rust, corrosion, and wear.
- Superior durability, even under severe service conditions, provides complete confidence that your
 engine oil is providing the fullest protection possible.

FEATURES & BENEFITS



- Maximum protection against deposits.
- Protect today's Gasoline Direct Injected (GDI) engines from Low Speed Pre-Ignition (LSPI).
- Special combination friction modifiers provides increased friction control.
- Multi-viscosity, thermally stable, and durable formulations provide maximum year-round protection.
- Improved timing chain wear protection, piston cleanliness, and fuel economy.

APPLICATIONS



- Highly recommended for all carburetor-equipped or fuel-injected gasoline engines including turbocharged, supercharged, and other high-performance models.
- The 5W-20, 5W30, and 10W-30 viscosity grades are recommended for applications calling for oils meeting ILSAC GF-6A and API SP/Resource Conserving.
- All viscosity grades are licensed for API SP and are backward-compatible with prior service categories (SN, SM, SL, SJ and SH).
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-8 Premium Gasoline Motor Oils:

Material Code	663013002	663012002	663011002
SAE Grade	5W-20	5W-30	10W-30
Gravity, ASTM D4052, °API	32.0	32.4	30.8
Pounds/Gallon at 60°F	7.20	7.19	7.26
Specific Gravity at 60°F	0.865	0.863	0.872
Viscosities:			
at -25°C, cP Max	-	-	5,820
at -30°C, cP Max	6,170	5,360	-
at 40°C, cSt	49.2	60.0	67
at 100°C, cSt	8.3	9.9	10.3
Viscosity Index	144	151	141
Flash Point, ASTM D92, COC, °F (°C)	442 (228)	450 (232)	451 (233)
Pour Point ASTM D97, °F (°C)	-33 (-36)	-38 (-39)	-33 (-36)
Color, ASTM D1500	L3.5	L3.5	L3.5

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Mystik® JT-8® Premium Gasoline Synthetic Motor Oils



OVERVIEW



- Well-balanced combinations of today's highest quality synthetic base stocks, with an advanced additive system that meets stringent automotive specifications.
- Designed to provide excellent protection in today's high-performance gasoline engines (including turbocharged and supercharged) in passenger cars, vans, sport utility vehicles, and light trucks.
- Demonstrate improved performance in today's advanced engine designs, including benefits in industry-accepted fuel economy tests.

FEATURES & BENEFITS



- Meet the performance requirements for the latest gasoline-fueled engine service ILSAC GF-6A/Resource Conserving and API SP.
- Meet the most advanced emissions and fuel economy standards in the US for gasoline engines.
- · Excellent low-temperature starting and pumpability characteristics.
- High-temperature/high-shear properties superior to conventional oils.
- Lower volatility than conventional oils.
- Enhanced protection against varnish buildup and sludge formation in critical engine parts contributes to top performance and long engine life.
- Extended engine life due to control of wear and deposit formation.
- Compatible with conventional and synthetic motor oils.

APPLICATIONS



- Recommended for passenger cars, sport utility vehicles and light trucks operating on gasoline.
- Recommended for use in gasoline engines which have been converted to operate on compressed natural gas (CNG), liquefied natural gas (LNG), and liquefied petroleum gas (LPG, including propane and butane).
- Mystik JT-8 Premium Gasoline Synthetic Motor Oil SAE 0W-20 meets the GM dexos1® Gen2 specification and is recommended for original equipment manufacturers such as Toyota and Honda for some hybrid vehicle applications and a limited number of low-temperature applications.
- Mystik JT-8 Premium Gasoline Synthetic Motor Oil SAE 5W-30 meets the GM dexos1 Gen2 specification and provides excellent performance where GM4718M or GM6094M is referenced.
- Mystik JT-8 Premium Gasoline Synthetic Motor Oils are Approved and Licensed by GM as dexos1 Gen2 oils.
- Mystik JT-8 Premium Gasoline Synthetic Motor Oils are not recommended for use in diesel
 engines in passenger cars, vans or light trucks. Mystik JT-8 SHD Motor Oils are
 recommended for diesel applications.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-8 Premium Gasoline Synthetic Motor Oils:

Material Code	663032002	663024002	663014002
SAE Grade	0W-20	5W-20	5W-30
Gravity, ASTM D4052, °API	35.0	34.5	34.2
Pounds Per Gallon	7.08	7.10	7.11
Flash Point, ASTM D92, °F (°C), COC	200 (428)	442 (228)	450 (232)
Low Temperature Cranking, ASTM			
D52936 Temperature, °F (°C)	-28 (-35)	-22 (-30)	-22 (-30)
Viscosity, cP	5,190	5,270	4,080
Viscosity, ASTM D445			
cSt at 40°C	46.0	52.0	58.5
cSt at 100°C	8.5	8.7	10.5
Viscosity Index, ASTM D2270	164	145	171
Pour Point ASTM D97, °F (°C)	-33 (-36)	-33 (-36)	-27 (-33)
Color, ASTM D1500	L3.5	L3.5	L3.5
ILSAC GF-6A	Yes	Yes	Yes
API SP	Yes	Yes	Yes
Resource Conserving	Yes	Yes	Yes
GM dexos1 Gen2 Approved	Yes	Yes	Yes

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Mystik® JT-8® Synthetic Blend Super Heavy Duty Engine Oils Monogrades



OVERVIEW



- For hydraulic systems, transmissions, and engines that recommend a monograde engine oil type lubricant.
- Formulated with premium base oils and additives to reduce wear and extend component life.

APPLICATIONS



- · Service Category CF (obsolete).
- Service Category CF-2 (obsolete).
- · Hydraulic systems where engine oils are recommended.

PROPERTIES



Typical Properties for Mystik JT-8 Synthetic Blend Super Heavy Duty Engine Oils Monogrades

Material Code	663006	663007	663008
SAE Grade	30	40	50
Gravity, ASTM D4052, °API	30.0	29.2	27.8
Density, lb/gal	7.30	7.33	7.40
Specific Gravity at 60F	0.876	0.880	0.888
Flash Point, ASTM D92 (COC), °F (°C)	489	486	482
Viscosity, ASTM D445			
cSt at 40°C	93.1	121	206
cSt at 100°C	11.7	13.9	19.5
Viscosity Index, ASTM D2270	116	113	107
CCS Viscosity, ASTM D5293, cP	NR	NR	NR
MRV Pumpability, ASTM D4684, cP	NR	NR	NR
MRV Yield Stress at -25°C, ASTM D4684	NR	NR	NR
Pour Point, ASTM D97, °F (°C)	-33 (-36)	-33 (-36)	-22 (-30)
Color, ASTM D1500	L2.5	L2.5	L3.5
Sulfated Ash, ASTM D874, m%	0.92	0.92	0.92

NR = Requirement

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Mystik® JT-8® Synthetic Blend Super Heavy Duty Engine Oils



OVERVIEW



- Performance engineered with proprietary additive technology to meet the performance demands of newer engine hardware.
- Designed to ensure long-lasting engine durability under the toughest operating conditions.
- For commercial over-the-road fleets, agriculture, construction equipment, buses, automobiles, and other similar diesel-powered applications where a premium quality engine oil is required.

FEATURES & BENEFITS



- Engineered to provide long engine life in challenging service conditions.
- Double the oil durability protection compared to conventional CJ-4 engine oils (always follow OEM recommendations when extending oil drain intervals).
- Maintain viscosity over extended service intervals, even under extreme operating conditions.
- Recommended for low emission Tier 4 and on-highway low emission engines.
- SAE 10W-30 improves fuel economy up to 3% compared to conventional 15W-40 viscosity grade oils.

APPLICATIONS



SAE VISCOSITY GRADE		10W-30	15W-40
	CK-4	~	~
	CJ-4	~	~
RECOMMENDED	CI-4 PLUS	~	~
FOR:	CI-4	~	~
	CH-4	~	~
	SN	_	~
Caterpillar ECF-3		~	~
Cummins CES 20086		~	~
Detroit Diesel 93K222		~	~
Volvo/Mack/Renault/VDS-4.5/EOS-4.5/RLD-4		~	~
Paccar		~	~
Navistar - International		~	~
Ford WSS-M2C171-F1		V	V

Notes:

- Consult owner's manual for proper SAE viscosity grade and API Service Category.
- Optimum drain intervals can be achieved utilizing oil analysis in conjunction with OEM guidelines.

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PROPERTIES



API Comparison Chart

Category	Mystik JT-8 API CJ-4	Mystik JT-8 API CK-4		
Back serviceable	Yes	Yes		
Viscosity grades	15W-40/10W-30	15W-40/10W-30		
Fleet million mile engine test rating	Better	Best		
100% improved oxidation stability	No	Yes		
Greater shear stability vs. conventional API CJ-4	Yes	Yes		
Aeration control vs. conventional API CJ-4	Better	Best		
SAE 10W-30 sustains improved fuel economy through 50,000 miles	Better	Best		
Compatible with conventional API CJ-4 oils	Yes	Yes		
Best Overall Performance and Backward compatibility	Better	Best		

Typical Properties for Mystik JT-8 Synthetic Blend Super Heavy Duty Engine Oils:

Material Code	625775002	625776002
SAE Grade	10W-30	15W-40
Gravity, ASTM D4052, °API at 60°F	31.5	30.8
Pounds/Gallon at 60°F	7.25	7.30
Specific Gravity at 60°F	0.87	0.88
Viscosity		
at 40°C, cSt	79	112
at 100°C, cSt	11.9	15.2
Viscosity Index	143	141
CCS Viscosity, cP, @ Temperature	5,830 @ -25°C	4370 @ -20°C
MRV Viscosity, cP, @ Temperature	20,000 @ -30°C	15,620 @ -25°C
MRV Yield Stress, Pa, @ Temperature	<35	<35
Pour Point, °F (°C)	-38 (-39)	-33 (-36)
Flash Point, COC, °F (°C)	432 (222)	450 (232)
Noack Evaporative, ASTM D5800, % Loss	11.6	10.7
Color, ASTM D1500	L3.0	L3.5
Total Base Number, ASTM D2896	10	10
Sulfated Ash, ASTM D874, % wt	1.0	1.0

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Houston, Texas		
Manufactured in USA		

Customer Service Line 1-800-331-4068 Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Customer Service Email LubesCS@CITGO.com Online at www.mystiklubes.com

Mystik® JT-8® Synthetic Blend Super Heavy Duty Engine Oils SAE 10W-40 and SAE 15W-50



OVERVIEW



- SAE 10W-40 provides an improvement in cold-weather start-up lubrication while providing excellent wear protection at higher operating temperatures.
- SAE 15W-50 is designed for the equipment owner operating older equipment with higher hours or miles that can benefit from a higher viscosity grade heavy duty engine oil.

FEATURES & BENEFITS



- Engineered to provide excellent protection for equipment operating in severe conditions.
- Provide extended diesel engine life.

APPLICATIONS



Commercial over-the-road fleets, construction equipment, buses, and other similar diesel-powered
applications where premium quality engine oil is required.

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PROPERTIES



Typical Properties for Mystik JT-8 Synthetic Blend Super Heavy Duty Engine Oils SAE 10W-40 and SAE 15W-50:

Material Code	663002	663004
SAE Grade	10W-40	15W-50
API Service Category	CK-4	CI-4 Plus
Gravity, ASTM D4052, °API	31.5	30.3
Density, lb/gal	7.23	7.28
Flash Point, ASTM D92 (COC), °F (°C)	442 (228)	440 (227)
Viscosity ASTM D445		
cSt at 40°C	105	151
cSt at 100°C	15.6	19.5
Viscosity Index, ASTM D2270	157	148
CCS Viscosity, ASTM D 5293, cP	5,700 at -25C	6,158 at -20C
MRV Pumpability, ASTM D 4684, cP	39,000 at -30C	26,600 at -25C
MRV Yield Stress at -25°C, ASTM D 4684	<35 at -30C	<35 at -25C
Pour Point, ASTM D97, °F (°C)	-49 (-45)	-42 (-44)
Color, ASTM D1500	L3.5	L3.5
Sulfated Ash, ASTM D874, m%	1.0	1.0

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Mystik® JT-8® Synthetic Engine Oil SAE 5W-40



OVERVIEW



- Full synthetic super heavy duty engine oil, engineered with proprietary additive technology.
- Extra performance for both older and newer engines, with improved engine drain interval capabilities.
- Improved cold-temperature performance.
- For equipment owners who need maximum engine durability, fuel efficiency, extended oil service capability, and superior cold-weather start-up performance.

FEATURES & BENEFITS



- Up to 3% fuel economy advantage over SAE 15W-40 viscosity grade oils.
- Improves cold cranking, extending starter/battery life, reducing dependency on block heaters, and saving energy.
- Double the oil durability protection compared to conventional CJ-4 engine oils (always follow OEM recommendations when extending oil drain intervals).
- Superior lubrication in extreme temperature ranges, compared to conventional SAE 15W-40 viscosity grade oils.

APPLICATIONS



- API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4
- Caterpillar ECF-3
- Cummins CES 20086
- Detroit Diesel DFS 93K222
- Volvo/Mack/Renault VDS-4.5/EOS-4.5/RLD-3
- Paccar
- Navistar
- Ford WSS-M2C171-F1

Category	Mystik JT-8 Synthetic Blend SHD 15W-40 API CJ-4	Mystik JT-8 Synthetic Blend SHD 10W-30 API CK-4	Mystik JT-8 Synthetic Blend SHD 15W-40 API CK-4	Mystik JT-8 Synthetic 5W-40 API CK-4
Back Serviceable	Yes	Yes	Yes	Yes
Oxidation Stability	~	V V	V V	V V V
Shear Stability	V	VV	V V	VV
Aeration Control	~	V V	V V	V V V
Wear Control	~	V V	V V	V V V
Fuel Efficiency	~	VV	~	V V
Low Tempurature Start-up	~	V V	~	V V V
Compatible with API CJ-4 Oil	Yes	Yes	Yes	Yes

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PROPERTIES



Typical Properties for Mystik JT-8 Synthetic Engine Oil SAE 5W-40:

Material Code	663033002
SAE Grade	5W-40
Gravity, ASTM D4052, °API	34.0
Pounds Per Gallon	7.14
Flash Point, COC, ASTM D92, °F (°C)	450 (232)
Viscosity ASTM D445	
cSt at 40°C	87
cSt at 100°C	14
Viscosity Index, ASTM D2270	166
CCS Vis, ASTM D5293, cP at °C	6,260 at -30°C
MRV Vis, ASTM D4684, cP at °C	30,054 at -35°C
MRV Yield Stress, ASTM D4684, Pa at °C	<35
Pour Point ASTM D97, °F (°C)	-44 (-42)
TBN (Total Base No.), ASTM D2896	11
Color, ASTM D1500	L5.5

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Mystik[®] JT-4[®] Synthetic 4-Cycle All-Terrain Vehicle Motor Oils



OVERVIEW



- Premium synthetic base oils, combined with a special additive system designed for all-terrain vehicle (ATV) and utility vehicle (UTV) engines, provide outstanding protection.
- Full-synthetic formulas provide optimum high- and low-temperature performance, minimize volatility, enhance fuel economy, and improve cold-temperature performance and high-temperature thermal and oxidation stability.

FEATURES & BENEFITS



- Superior protection against engine wear, rust, and corrosion, ensuring engine cleanliness and promoting longer engine life.
- Extra protection for gasoline-powered ATV and UTV engines requiring a JASO MA quality oil.
- · Protect in extreme hot and cold temperatures, with excellent thermal and oxidation stability.
- · Permit lubrication flow during cold weather start-up.
- · Maintain equipment performance and reliability.
- Excellent rust protection for wet riding environments.

APPLICATIONS



- For use in 4-cycle, gasoline-powered ATV and UTV engines, including those manufactured by Arctic Cat, Bombardier, Honda, Kawasaki, Polaris (including 1000 ProStar), Yamaha, and other original equipment manufacturers.
- Recommended for use in 4-cycle gasoline powered ATV and UTV engine applications requiring a JASO MA quality oil.
- Designed to be used in wet clutch applications that require JASO MA quality oil.
- Ideal for high-performance engines operating in extreme low and high temperatures and where
 performance demands the most from your oil.
- Select the SAE 0W-40 grade if frequent usage at low temperatures is expected.
- · Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-4 Synthetic 4-Cycle All-Terrain Vehicle Motor Oils:

Material Code	663079002	663080002
SAE Grade	0W-40	10W-40
Gravity, ASTM D237, °API	33.8	31.9
Density, lb/gal	7.13	7.21
Flash Point, ASTM D92, COC, °F (°C)	428 (220)	453 (234)
Pour Point, ASTM D97, °F (°C)	-56 (-51)	-22 (-30)
Viscosity, ASTM D445		
cSt at 40°C	93	98.4
cSt at 100°C	14.8	14.9
Viscosity Index, ASTM D2270	166	158
CCS Viscosity, cP (°C), ASTM D5293	6000 (-35)	5660 (-25)
NOACK Volatility, ASTM D5800, % Loss	7.0	9.0
Color, ASTM D1500	2.5	2.5
Sulfated Ash, ASTM D874, m%	0.9	1.0
TBN, ASTM D2896, mg KOH/g	9.5	9.2

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Mystik® JT-4® 2-Cycle Lawn and Garden Engine Oil



OVERVIEW



- Premium performance synthetic-blend lubricant designed for use in high-performance, air-cooled
 2-cycle generators, chainsaws, lawnmowers, snow blowers, leaf blowers, and trimmers.
- Premium base oils and a synthetic low-ash additive package provide excellent lubricity and detergency
 performance, surpassing standards for preventing piston and combustion chamber deposits.

FEATURES & BENEFITS



- · Low smoke and advanced protection for air-cooled, 2-cycle engines.
- Protects against exhaust port blocking, combustion chamber and piston deposits, ring sticking and scuffing, and wear.
- · Prevents piston seizure and cylinder scuffing.
- Mixes readily with fuel for pre-mix type, even at low temperatures.

APPLICATIONS



- Meets or exceeds API TC, JASO FD, FC and ISO-L-EGD requirements for 2-cycle air-cooled engine oils (JASO FD certification number: 001 MYS 091).
- Exceeds performance requirements for JASO FC, JASO FB, ISO-L-EGC, and -EGB.
- Can be used in either pre-mix or oil injection systems up to 50:1 fuel to oil ratios.
- Can be used in 2-cycle generators, chainsaws, lawnmowers, snow blowers, leaf blowers, and trimmers operating in hot, dirty, dusty environments and high loads for extended periods.
- Do not use in engines requiring an NMMA TC-W3®, TC-WII®, or TC-W® product.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-4 2-Cycle Lawn And Garden Engine Oil:

Material Code	663091002
Gravity, ASTM D4052, °API	32.0
Density, lb/gal, at 60°F	7.21
Flash Point, PMCC, ASTM D93, °F (°C)	185 (85)
Flash Point, COC, ASTM D92, °F (°C)	203 (95)
Viscosity, ASTM D445, cSt at 40°C	55
cSt at 100°C	8.5
ASTM D2161, SUS at 100°F	281
SUS at 210°F	54.8
Viscosity Index, ASTM D2270	129
Pour Point, ASTM D97, °F (°C)	-49 (-45)
Apprearance, Color	Purple
Sulfated Ash, ASTM D874, %	0.13
Total Base Number, ASTM D2896, mg KOH/g	2.2

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Mystik® JT-7® Multi-Purpose Gear Lubricants



OVERVIEW



 Multi-purpose, thermally stable, sulfur-phosphorus extreme pressure (EP) gear lubricants that exceed the performance requirements of the latest axle and non-synchronized manual transmissions.

FEATURES & BENEFITS



- Provide superior EP protection, minimum gear wear, excellent deposit control, and improved rust and corrosion protection under extreme service conditions.
- Superior service in differentials of passenger cars, trucks, and heavy duty equipment.
- Multiple viscosity grades, with high viscosity index. Wide temperature range for all-season
 application in most climates.
- Outstanding thermal stability and durability provide longer life at higher operating temperatures than
 most competitive conventional gear lubricants.
- · EP additive provides superior protection against wear and scuffing.

APPLICATIONS



- Top quality, versatile hypoid EP gear lubricants; recommended in applications that specify API Gear Service GL-4, GL-5 and MT-1 and SAE J2360.
- Recommended for all automotive and heavy duty axle service including break-in, add-to or make-up, drain and refill, and for limited slip axles.
- Excellent in limited slip differentials known as Sure-grip®, Posi-trac®, Trac-lock®, etc., for complete fill or for top-off.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-7 Multi-Purpose Gear Lubricants:

Material Code	663705002	663706002
SAE Grade	80W-90	85W-140
AGMA Lubricant Number	4 EP	7 EP
Gravity, ASTM D4052, °API	26.5	25.2
Density, lb/gal at 60°F	7.45	7.53
Specific Gravity at 60°F	0.895	0.90
Viscosities:		
at -12°C, cP	_	55,000
at -26°C, cP	90,000	_
at 40°C, cSt	146	347
at 100°C, cSt	16.2	28.0
at 100°F, cSt (SUS)	172 (797)	514 (2380)
at 210°F, cSt (SUS)	17.4 (87.5)	33.6 (159)
Viscosity Index	122	108
Flash Point, ASTM D92, COC, °F (°C)	403 (206)	438 (226)
Pour Point, ASTM D97, °F (°C)	-27 (-33)	0 (-18)
Color	Red	Red

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Mystik® Gear Lubricant SAE 90



OVERVIEW



- A sulfur-phosphorus (SP type), extreme pressure (EP) gear lubricant that provides antiwear and antiscuff lubricity.
- For gears subject to shock loading in service and for those gear set types requiring EP additive
 compounding due to their design characteristics.

FEATURES & BENEFITS



- API Service Classification GL-4.
- May be used for 'top-off' in automotive axles requiring a hypoid EP lube.
- Economically satisfies industrial applications where large loss due to leakage is a factor.

APPLICATIONS



- For use where a GL-4 gear lube is required.
- Recommended for gears subject to shock loading in service and gear sets requiring EP additive compounding.
- · May be added to automotive axles requiring a hypoid EP lube.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik Gear Lubricant SAE 90:

Material Code	663775002
SAE Grade	90
AGMA Lubricant Number	4 EP
Gravity, ASTM D4052, °API	22.9
Density, lb/gal at 60°F	7.6
Specific Gravity at 60°F	0.917
Viscosities:	
at 40°C, cSt	237
at 100°C, cSt	16.5
at 100°F, cSt (SUS)	275 (1273)
at 210°F, cSt (SUS)	17.1 (86.1)
Viscosity Index	64
Flash Point, ASTM D92, COC, °F (°C)	430 (221)
Pour Point, ASTM D97, °F (°C)	-20 (-29)
Color	3.0

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Mystik® JT-5® Synthetic Blend TFX Tractor Trans-Hydraulic Fluid



OVERVIEW



- A performance-engineered tractor fluid for the equipment owner needing longer component life, ensuring optimum efficiency for many years of tillage and harvesting operations.
- The investment in today's farm tractors often requires longer ownership of 10 years or more while
 operating at lowest possible maintenance cost.
- Achieving maximum equipment productivity is required for survival with so many challenges facing modern farm profitability.
- Designed for modern farm tractors that produce significant horsepower, requiring greater protection for high production machines that impose much greater stress on transmissions and axles with multiple high output hydraulic applications.

FEATURES & BENEFITS



ADVANCED TECHNICAL FEATURES	PERFORMANCE BENEFIT
Synthetic Blend	Improves performance over wider temperature range and reduces tendency of fluid breakdown due to sustained high operating temperatures.
Shear stable viscosity with a high viscosity index	Maintains and sustains optimum viscosity over the service intervals to ensure overall productivity and efficiency.
Leak-resistant seal maintainer technology	Conditions seals to prevent leakage as equipment ages with higher hours of operation.
Special friction modifiers	Improves brake system function and protects against brake chatter.
Clean system-detergent/dispersant	Helps minimize tendency for transmission clutch plate glazing from high temperatures and deposit build up protecting against loss of friction control and power transfer efficiency to the drive train. Maintains high-pressure hydraulic system efficiency by preventing hydraulic valve deposit build up and sluggish operation.
Double acting anti-rust/anti foam technology	Prevents system corrosion and controls tendency for air entrainment, resulting in efficient power transfer.
Wide temperature range	Excellent fluidity and start-up lubrication improves system response time in colder temperature
Anti-slip formulation	Ensures power transfer efficiency under high loads in transmissions, axles and all hydraulic applications.

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APPLICATIONS



Formulated to meet John Deere J20C and is recommended for use in the following applications:

- John Deere JDM J20C
- AGCO Power Fluid 821XL
- AGCO CMS M1135
- AGCO CMS M1141
- AGCO GIMA-CMS M1143
- AGCO GIMA-CMS M1145
- Allison C-4
- API GL-4
- ASTM D6973 (Eaton 35VQ)
- CAT TO-2 (obsolete)
- CASE JIC 143, 144
- Case New Holland: Ford M2C134-D
- Case New Holland: FNHA 2-C-201.00
- Case New Holland: CNH MAT 3525
- · Case New Holland: CNH MAT 3509
- Case New Holland: CNH MAT 3540 *
- Case New Holland: Case MS 1205
- Case New Holland: Case MS 1206
- Case New Holland: Case MS 1207

- Case New Holland: Case MS 1209
- Denison Hydraulics HF-0, HF-1, HF-2
- Eaton E-FDGN-TB002-E
- Eaton Vickers I-286-S
- Eaton Vickers M-2950-S
- International Harvester B-5 / B-6
- Komatsu Dresser B-06-0001 and B-06-0002
- Kubota UDT
- Minneapolis Moline Q-1766, Q-1722, Q1766B
- New Holland WB NWH 410B
- Oliver Q-1705
- Renk Doromat 873
- Renk Doromat 874A / 874B
- Volvo WB 101
- White Farm Equipment Q-1826
- ZF TE-ML 03E
- ZF TE-ML 05F
- ZF TE-ML 06K

*Not recommended as a top off fluid for zinc free fluids. When transitioning from a zinc free fluid, please drain reservoir and refill with Mystik JT-5 Synthic Blend TFX Fluid.

*Suitable for use in tractors requiring MAT 3540 built before 2013 ONLY

Always check your equipment owner's manual for proper lubricant requirement.

PROPERTIES



Typical Properties for Mystik JT-5 Synthetic Blend TFX Tractor Trans-Hydraulic Fluid:

		MANGELIK L.E. Countle att a Diam at TEX
		MYSTIK J-5 Synthetic Blend TFX TRACTOR TRANS-HYDRAULIC FLUID
Material Code		663514002
Gravity, ASTM D4052, °API		32.1
Density, lb/gal		7.2
Flash Point, COC, ASTM D92, °F (°C	:)	424 (218)
Viscosity, ASTM D2983, cP		
at -20°C		2,500
at -35°C		17,500
ASTM D445		
cSt at 40°C		53.8
cSt at 100°C		9.8
Viscosity Index, ASTM D2270		169
Pour Point, ASTM D97, °F (°C)		-54 (-48)
Color, ASTM D1500		L1.0
ASTM D892, Sequence I, II, III		Pass
John Deere J20C Tests		
Shear Stability Test	JDQ 102	8.0

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Mystik® JT-5® Tractor Trans-Hydraulic Fluid



OVERVIEW



- A multi-function hydraulic, transmission, differential, and brake fluid for tractors and other off-road
 equipment with a single reservoir for all four systems.
- Provides excellent performance in modern agricultural equipment, with outstanding protection against gear wear, brake chatter, and oxidation.
- Particularly suited for hard-working applications where an added level of protection is desired.
- · Proven field performance.

FEATURES & BENEFITS



- Excellent filterability characteristics along with rust and corrosion inhibitors, water tolerance, and wide temperature range performance.
- Contains special friction modifiers for superior brake chatter control.
- Formulated to resist leakage.
- · Formulated with advanced detergent/dispersant, antiwear, antioxidant, antirust, and antifoam additives.

APPLICATIONS



Mystik JT-5 Tractor Trans-Hydraulic Fluid is formulated to meet John Deere J20C and is recommended for use in applications that require:

- John Deere JDM J20C
- AGCO Power Fluid 821XL
- AGCO CMS M1135
- AGCO CMS M1141
- AGCO GIMA-CMS M1143
- AGCO GIMA-CMS M1145
- Allison C-4
- API GI-4
- ASTM D6973 (Eaton 35VQ)
- CAT TO-2 (obsolete)
- CASE JIC 143, 144
- Case New Holland: Ford M2C134-D
- Case New Holland: FNHA 2-C-201.00
- Case New Holland: CNH MAT 3525
- Case New Holland: CNH MAT 3509

- Case New Holland: Case MS 1205
- Case New Holland: Case MS 1206
- Case New Holland: Case MS 1207
- Case New Holland: Case MS 1209
- Denison Hydraulics HF-0, HF-1, HF-2
- Eaton E-FDGN-TB002-E
- Eaton Vickers I-286-S
- Eaton Vickers M-2950-S
- International Harvester B-5 / B-6
- Komatsu Dresser B-06-0001 and B-06-0002
- Kubota UDT
- Minneapolis Moline Q-1766, Q-1722, Q1766B
- New Holland WB NWH 410B
- Oliver Q-1705
- Renk Doromat 873

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APPLICATIONS



- Renk Doromat 874A / 874B
- Volvo WB 101
- White Farm Equipment Q-1826
- ZF TE-ML 03E
- ZF TE-ML 05F
- ZF TE-ML 06K

Always consult your equipment owners manual for proper lubricant selection.

PROPERTIES



Typical Properties for Mystik JT-5 Tractor Trans-Hydraulic Fluid:

		MYSTIK J-5 TRACTOR HYDRAULIC FLUID	
Material Code		663509002	
Gravity, ASTM D405	2, °API	30.5	
Density, lb/gal		7.28	
Flash Point, COC, AS	STM D92, °F (°C)	450 (232)	
Viscosity, ASTM D29	983, cP		
at -20°C		3,918	
at -35°C		33,480	
ASTM D445			
cSt at 40°C		58.7	
cSt at 100°C		9.7	
Viscosity Index, AST	M D2270	145	
Pour Point, ASTM DS	97, °F (°C)	-51 (-46)	
Color, ASTM D1500		L1.0	
ASTM D892, Sequer	nce I, II, III	Pass	
John Deere J20C Te	ests		
Shear Stability Test	JDQ 102	7.6	

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Mystik. LUBRICANTS

Mystik® Multi-Purpose ATF

OVERVIEW



- Multi-function, automatic transmission fluid manufactured from high-quality base stocks and premium additives to protect transmission parts against rust, corrosion, and wear.
- Engineered to give superior protection and performance where the following lubricants are specified: General Motors transmissions calling for DEXRON®-III, DEXRON®-IIE and DEXRON®-II fluids; Ford transmissions calling for MERCON® type ATFs; Allison Transmission Division (C-4).

FEATURES & BENEFITS



- A single fluid for a wide variety of uses: automotive automatic transmissions, industrial torque converters, sensitive hydraulic fluid applications, powershift transmissions, Allison automatic transmissions, and power steering fluids.
- · Excellent stability for long service life.
- · Treated to prevent wear, leaking, and foaming.
- Detergent inhibitor provides gum-up resistance.
- · Dyed red for leak detection.

APPLICATIONS



- For use in automatic transmissions manufactured by General Motors and Ford for model years 2006 and prior (except those calling for FORD Type F Fluid, MERCON® SP, MERCON® V, MERCON® LV, DEXRON® -VI, and CVT fluids).
- Suitable for use in foreign cars and trucks requiring the use of DEXRON® -III, DEXRON® -IIE, DEXRON® -II fluids, and MERCON® type ATFs.
- Meets the performance requirements of the following hydraulic fluid, powershift transmission fluid, and automatic transmission fluid specifications:

Vickers M-2950-S and I-286-S Caterpillar TO-2 Allison Type C-4 Allison TES 389B

GM DEXRON® -IIIG/H, IID/E Ford MERCON® Ford ESP-M2C166H Chrysler ATF +3 (MS 7176E)

Suitable for use where the following specifications are recommended:

Audi G 052 162-A1/A2 (ZF Lifeguardfluid 5) MAN 339A Volvo 97325, 97335, CE 97340

VW G-052 025 A2; G-052 162

ZF all 3 & 4 speed transmission; ZF TE-ML 05L, TE-ML 09 and TE-ML 21L

- May be used industrially as an excellent multi-viscosity, all-weather hydraulic fluid, torque converter fluid, and low-temperature gear lubricant.
- Refer to equipment owner's manual for proper lubricant recommendation.

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Manufactured in USA

PROPERTIES



Typical Properties for Mystik Multi-Purpose ATF:

Material Code	633135002
Gravity, ASTM D4052, °API	33.0
Pounds Per Gallon	7.16
Flash Point, ASTM D92, COC, °F (°C)	424 (218)
Pour Point, ASTM D97, °F (°C)	-54 (-48)
Viscosity, ASTM D445	
cSt at 40°C	34.3
cSt at 100°C	6.95
ASTM D2983	
cP at -20°C	1,020
cP at -40°C	15,100
Vicosity Index, ASTM D2270	169
Color	Red

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Mystik. LUBRICANTS

Mystik® Lubricants Tenax® Fluids

OVERVIEW



- Heavy duty transmission and final drive lubricants formulated to meet the performance requirements of Caterpillar TO-4 (SAE 10W, 30, and 50) and Allison C-4 (SAE 10W and 30).
- Provide the protective qualities essential to maximize equipment life and performance in today's advanced equipment.

FEATURES & BENEFITS



- Meet the performance requirements of Caterpillar TO-4 (all grades).
- Meet the Allison C-4 specification (SAE 10W and 30).

APPLICATIONS



- Recommended for use in heavy duty powershift transmissions, final drives, hydrostatic transmissions, torque converters, and hydraulics where a TO-4 or C-4 fluid is recommended.
- SAE 50 can be used in Eaton/Fuller, Rockwell, and Dana/Spicer transmissions for service fill.
- Excellent performance in ZF powershift transmissions used in off-road machines, special vehicles, and lift trucks.
- · Not recommended as engine lubricants.

PROPERTIES





Material Code	663510002	663511002	663512002
SAE Grade	10W	30	50
Gravity, ASTM D4052, °API	31.1	31.0	27.3
Density, lb/gal	7.3	7.4	7.4
Specific Gravity	0.877	0.886	0.896
Viscosity			
at 35°C, cP	23,000	_	_
at 40°C, cSt	38.1	96	209.4
at 100°, cSt	6.1	11.3	17.9
Viscosity Index	112	104	100
Flash Point, ASTM D92, COC, °F (°C)	420 (216)	446 (230)	511 (266)
Pour Point, ASTM D97, °F (°C)	-38 (-39)	-27 (-33)	0 (-18)
Color, ASTM D1500	L3.0	3.5	4.0

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Mystik® Cotton Picker #00 Grease



OVERVIEW



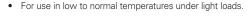
- A unique semi-fluid formula developed to provide exceptional flow performance.
- Optimized to provide consistent flow for optimal protection of the picker spindles.
- This fluidity allows it to lubricate in tough applications.
- Properly lubricated spindles can operate at peak performance, plucking cotton from bolls without tearing.

FEATURES & BENEFITS



- Special semi-fluid, lithium-based grease that provides low friction and channeling resistance.
- · Flows freely, but resists excessive leakage from spindle bearings.
- Performs well over a wide temperature range resulting in low cold-weather starting torque.
- · Soft consistency, channel resistant.
- Resists leakage from bearings, reducing cotton staining.
- · Easy to dispense or pump.

APPLICATIONS





• Consult owner's manual for proper lubricant selection.

PROPERTIES





Material Code	665101002
NLGI Grade	00
Thickener Type	Lithium Stearate
Texture	Smooth, Short Fiber
Color	Light Green, Low-Staining
Worked Penetration, ASTM D217	400-430
Approximate Temperature Range, °F (°C)	5 to 200 (-15 to 93)
Base Oil Viscosity @ 40°C, cSt	20

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Mystik. Mystik.

Mystik® JT-6® High Temp Greases

Formerly know as Mystik JT-6 Hi-Temp Greases

OVERVIEW



- Extremely versatile, high-temperature lithium complex greases that combine excellent multipurpose properties with a high dropping point for application over a wide temperature range.
- Superior protection for a wide variety of automotive, agricultural, trucking, mining, construction, and industrial equipment.

FEATURES & BENEFITS



- · High Timken OK Load.
- Excellent Four-Ball Wear and extreme pressure (EP) performance.
- · Outstanding shock load protection.
- · Highly recommended for disc brake wheel bearings.
- · Approved for use in Rockwell and Spicer universal joints.
- JT-6 Hi-Temp No. 1 developed for applications where service conditions dictate a grease of softer consistency.
- Both grades meet the highest performance categories of ASTM D4950 Automotive Grease Classification System, GC for wheel bearing service and LB for chassis service.



APPLICATIONS



- Heavily loaded industrial, mining, and construction applications.
- Severe service requirements such as disc brake wheel bearings, backhoe hinge pins, and conveyor bearings.
- Mining operations, sand/gravel plants, and construction equipment where shock loads are placed on bearings.
- Refer to equipment owner's manual for proper lubricant recommendation.

Approved for:

- Dana Corporation
- Spicer Universal/Joint Division
- M-2006-J (#2)
- Registered NLGI GC-LB
- Weatherford Artificial Lift (#2)

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PROPERTIES



Typical Properties for Mystik JT-6 High Temp Greases:

Material Code	665003002	665005002
NLGI Consistency Number	1	2
NLGI Certified, ASTM D4950	GC-LB	GC-LB
Thickener Type	Lithium Complex	Lithium Complex
Texture	Smooth, Adhesive	Smooth, Adhesive
Color	Red	Red
Worked Penetration, ASTM D217	310-340	265-295
Dropping Point, ASTM D2265, °F (°C)	500 (260)	550 (288)
Water Washout, ASTM D1264, % loss @ 175°F	9.4	2.5
Rust Prevention, ASTM D1743, rating	Pass	Pass
Copper Corrosion, ASTM D4048, rating	1b	1b
Oil Separation, ASTM D1742, % loss	2	1
Four-Ball Wear, ASTM D2266, mm	0.45	0.45
Four-Ball Weld, ASTM D2596, kgf	315	315
Four-Ball Load Wear Index, ASTM D2596, kgf	50	50
Approximate Temperature Range, °F (°C)	-10 to 325 (-23 to 163)	-10 to 325 (-23 to 163)
Base Oil Viscosity: 40°C, cSt	630	630

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Mystik® JT-6® Multi-Purpose #2 Grease



OVERVIEW



- An exceptionally water-resistant, medium temperature range multi-purpose grease for extreme pressure loads and slow- to medium-speed bearings.
- Works especially well where extended lubrication intervals are practical, highly loaded or shock loaded grease lubricated applications exist, and excellent rust protection is desired.

FEATURES & BENEFITS



- Light-colored and low staining, with a very low oil separation rate.
- Provides excellent antiseize protection under high loads.
- Outstanding adhesion enables product to stay in place better than most others.
- · Excellent for greased chassis points, fifth wheels, and water pumps.
- Fully rust- and oxidation-inhibited.

Also available in an aerosol form:

- Penetrates hard-to-reach points to leave a protective coating of grease.
- · Stays in place, even under extreme pressures and severe service.
- · Resists rust, corrosion, oxidation, and wear.
- · Ideal for hard to reach points and precise placement.
- Returns to a non-fluid consistency in about 15 minutes.

APPLICATIONS



- For extreme pressure loads, slow- to medium-speed bearings, greased chassis points, fifth wheels, and water pumps.
- Where extended lubrication intervals are practical, highly loaded or shock loaded grease lubricated applications exist, or where excellent rust protection is desired.
- Aerosol version is recommended for hard to reach locations.
- · Refer to equipment owner's manual for proper lubricant recommendation.

DANGER: Extremely flammable aerosol. Refer to SDS for proper transport, storage, and handling. Always check with local jurisdictions for warehouse requirements.

NOTE: Because this product has better adhesion, it is a little more difficult to pump than less-adhesive greases. Use of a follower plate is recommended where air-driven pumps are used.

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Manufactured in USA

PROPERTIES



Typical Properties for Mystik JT-6 Multi-Purpose #2:

Material Code	665006002	AEROSOL (Grease) 665007002
NLGI Grade	2	2
Thickener Type	Anhydrous Calcium	Anhydrous Calcium
Texture	Smooth, Adhesive	Smooth, Adhesive
Color	Medium Amber	Medium Amber
Worked Penetration, ASTM D217	265-295	265-295
Dropping Point, ASTM D2265, °F (°C)	290 (143)	290 (143)
Water Washout, ASTM D1264, % loss @ 100°F	0.9	0.9
Rust Prevention, ASTM D1743, rating	Pass	Pass
Oil Separation, ASTM D1742, % loss	< 1	< 1
Timken OK Load, ASTM D2509, lb.	55	55
Four-Ball Wear, ASTM D2266, mm	0.6	0.6
Four-Ball Weld, ASTM D2596, kgf	250	250
Four-Ball Last Non-Seizure Load, ASTM D2596, kgf	65	65
Approximate Temperature Range, °F (°C)	0 to 250 (-18 to 121)	0 to 250 (-18 to 121)
Viscosity @ 40°C, cSt (Incl. Oil Soluble Additives)	1080	_

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Mystik® JT-6® Heavy Duty SynBlend 460 #2 Grease



Formerly known as Mystik JT-6 Super Heavy Duty 460 Grease

OVERVIEW



- An extended-service capable, extreme pressure lubricating grease designed for a wide variety of heavy duty industrial, on-highway and off-highway equipment applications, especially pins, bushings and anti-friction bearings.
- Provides extra wear protection when operating with higher loads, resulting in longer equipment component life. Highly recommended for heavily loaded plain and anti-friction bearings such as those found in steel, paper, and cement industries.

FEATURES & BENEFITS



- Lithium complex thickened grease formulated with a premium additive system and a combination of synthetic and conventional base oils.
- Optimized formula provides superior performance properties over a wide operating range (-5° to 350°F), for a variety of weather conditions and application temperatures.
- Proprietary adhesive, stay-in-place formula helps seal out contaminants and extend lubrication intervals.
- High load-carrying capacity offers wear protection under severely loaded conditions; capable of carrying up to 3X more load than conventional greases.
- Enhanced water and corrosion resistance protects equipment under adverse conditions including saltwater spray and exposure to corrosive anti-icing agents.
- Superior protection in a variety of applications where enhanced load carrying capability, water resistance, and anti-corrosion protection properties are required.
- · Helps increase equipment life through superior performance.

APPLICATIONS



- Heavy duty and extreme heavy haul trucking: fifth wheels, U-joints, kingpins, steering drag links, shackle pins, pivots, cross shaft spring pins.
- Mining and construction: bulldozers, scrapers, backhoes, excavators, compactors, cranes, paving machinery, articulated vehicles, soil compactors, graders, ditch hoes, loaders.
- Pit and quarry equipment: rock crushers, conveyors, rock drills, bridge cranes, water tender, log trucks, chip van trucks.
- Agriculture: tractors, implements, tillage, planting and seeding machinery, sprayers and spreaders, hay balers, harvesting machinery, combines, mowers, skid steers.
- Heavy industry: heavily loaded plain and anti-friction bearings in cement, paper, and metal (steel, aluminum, copper) industries.
- Forestry and logging: harvester-processors, feller-bunchers, mulcher-masticators, brush cutters, shovel
 loggers, skidders, brush piling shovels, brush rakes, yarders, log landing machines, shovels, stroke
 delimbers, loaders, grinders, chippers, debarkers, forest road machines.
- Refer to equipment owner's manual for proper lubricant recommendation.

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PROPERTIES



Typical Properties for Mystik JT-6 Heavy Duty SynBlend 460 #2:

Material Code	665087002
NLGI Grade	2
ISO Viscosity Grade	460
Thickener Type	Lithium Complex
Texture	Smooth
Color	Magenta
Worked Penetration, ASTM D217	265-295
Dropping Point, ASTM D2265 °F (°C)	500 (260)
Rust Prevention, ASTM D1743, rating	Pass
5% Synthetic Sea Water Corrosion, ASTM D5969, rating	Pass
Water Washout, ASTM D1264, % Loss @ 175°F	2.3
Water Spray Off, ASTM D4049, % Loss	9.4
US Steel Mobility @ 0°F, gpm	38
Four-Ball Wear, ASTM D2266, mm	0.49
Four-Ball Weld, ASTM D2596, kgf	800
Base Oil Viscosity @ 40°C, cSt	460

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Mystik® JT-9® LeakShield™AW Hydraulic Oils



OVERVIEW



- Premium-quality antiwear, antileak, and antifoam hydraulic oils formulated for use in modern high- and low-pressure industrial and mobile hydraulic systems.
- A fully synthetic seal swell agent prevents and stops minor leaks and provides longer seal life.

FEATURES & BENEFITS



- Solvent-refined paraffinic, high viscosity index base oils with low pour points for wide temperature range applicability.
- Excellent oxidation resistance and thermal stability.
- Good water separation characteristics.
- Outstanding rust and corrosion inhibition for enhanced service life.
- Dved green for ease of identification.

APPLICATIONS



- Highly recommended for bearings and gears which require a rust and oxidation (R&O) or R&O/ AW hydraulic oil and hydraulic circuit components including valves, motors, servos, and pumps.
- May be used in applications where general non-detergent type or R&O inhibited oils are applicable.
- Suitable for use in vacuum pumps.
- May be used as API GL-1 gear lubricants where viscosity is suitable.
- HVI-32 meets FMC Corporation recommendations for a high viscosity index hydraulic fluid.
- Meet or exceed:
 - ASTM D6158 HM (2018)
 - Fives Cincinnati P-68, 69, 70
 - Parker Denison HF-0
 - DIN 51524-2 (2017)

 - Eaton Brochure 03-401-2010 General Motors LS-2 (2004)
 - JMCAS HK P041 (2004)

 - ISO 11158 HM (FDIS 2009)
 - SEB 18 22
 - US Steel 126, 127, 136
- HVI-32 and HVI-68 are guaranteed to have a dielectric strength of no less than 28 kV when packaged and can be used as nonconductive hydraulic oils.

Note: Dielectric strength is extremely sensitive to humidity and contamination. Once the containers are opened, the dielectric strength cannot be expected to remain at its original value. Containers should be kept tightly sealed and stored in a dry environment.

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PROPERTIES



Typical Properties for Mystik JT-9 LeakShield AW Hydraulic Oils:

Material Code	663303002	663304002	663305002	663306002	663312002	663314002
Designation					HVI-32	HVI-68
ISO Viscosity Grade	32	46	68	100	32	68
Gravity, °API ASTM D4052	32.3	31.3	30.8	30.1	33.5	31.0
Density, lb/gal at 60°F	7.19	7.24	7.26	7.29	7.14	7.25
Specific Gravity @ 60°F ASTM D1298	0.864	0.870	0.872	0.875	0.857	0.8771
Brookfield Viscosity ASTM D2983						
at -23.3°C, cP	_	_	_	_	1,925	9,100
at -35°C, cP	_	_	_	_	16,700	_
Viscosity ASTM D445						
at 40°C, cSt	32.5	46.0	68.0	98.2	31.6	68.0
at 100°C, cSt	5.55	6.92	9.0	11.5	6.61	10.8
Viscosity Index ASTM D2270	108	106	107	105	172	149
Appearance, Color	Green	Green	Green	Green	Green	Green
Flash Point, COC, °F (°C), ASTM D92	435(224)	435(224)	468(242)	471(244)	417(214)	453(234)
Pour Point, °F (°C) ASTM D97	-22(-30)	-22(-30)	-11(-24)	+5(-15)	-33(-36)	-27(-33)
Neutralization Number						
(TAN) ASTM D664	0.5	0.5	0.5	0.5	0.5	0.5
Rust Test, ASTM D665						
A - Distilled Water	Pass	Pass	Pass	Pass	Pass	Pass
B - Synthetic Sea Water	Pass	Pass	Pass	Pass	Pass	Pass
Foam Test, ASTM D892,						
Sequence I, II, III	Pass	Pass	Pass	Pass	Pass	Pass
Oxidation Test, hrs. ASTM D943	6,000	6,000	5,000	3,600	4,200+	3,500+
Meets Denison HF-0 Requirements	Yes	Yes	Yes	Yes	Yes	Yes
Meets Eaton Brochure-03-401-2010	Yes	Yes	Yes	Yes	Yes	Yes
Dielectric Strength, kV	_	_	_	_	35	35

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Nystik Lubricants

Mystik® Hydraulic Jack Oil

OVERVIEW



A low-viscosity fluid providing extra-low friction in hand- or foot-operated hydraulic systems.

FEATURES & BENEFITS



- Treated with antirust, antiwear, antioxidant, and antifoam additives
- Low viscosity reduces pumping effort required and allows jack to close rapidly and completely when released.
- · Provides rust, wear, and oxidation protection and foam resistance.
- Contains oils with low wax content and low aniline point for a naturally low pour point and seal swell/softening to retard leakage.
- · Easy-to-use package with pour spout.

APPLICATIONS





• Can also serve as a high-speed spindle oil and as a low-temperature lubricant.

PROPERTIES



Typical Properties for Mystik Hydraulic Jack Oil:

Material Code	663321002
ISO Grade (Approx.)	22
Gravity, °API @ 60°F ASTM D4052	25
Density, lb/gal at 60°F	7.53
Specific Gravity at 60°F ASTM D1298	0.9042
Viscosity ASTM D445	
at 40°C, cSt	21.5
at 100°C, cSt	3.8
Viscosity Index ASTM D2270	32
Flash Point, COC, °F (°C) ASTM D97	315 (157)
Pour Point, °F (°C) ASTM D97	-50 (-46)
Color	Red

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Online at www.mystiklubes.com

Manufactured in USA

Mystik® Terrasyn™ Irrigation Engine Oil



OVERVIEW



 A synthetic SAE 15W-40 oil for stationary natural gas engines, specially formulated to provide lubrication in engines that have been converted to natural gas fuel, such as those in LP and agricultural irrigation pump service.

FEATURES & BENEFITS



- Designed for added anti-wear protection for the valve train.
- Enhanced valve train protection compared to conventional stationary natural gas engine oils.
- Improved top-end start up lubrication, especially in colder environments.
- Excellent extended drain capability, providing savings in downtime, work man-hours, and oil usage.

APPLICATIONS



- For use in engines that have been converted to natural gas fuel, such as those in LP and agricultural
 irrigation pump service.
- Consult equipment manufacturer for proper lubricant selection.

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Agricultural Products

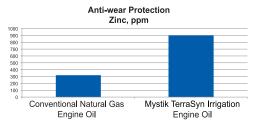
PROPERTIES

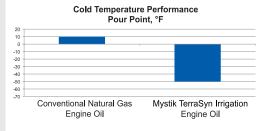


Typical Properties for Mystik Terrasyn Irrigation Engine Oil:

Material Code	663061002
SAE Grade	15W-40
Gravity, ASTM D4052, °API	31.6
Density, lbs/gal	7.22
Flash Point, ASTM D92 (COC), °F (°C)	489 (254)
Viscosity, ASTM D445	
cSt at 40°C	107
cSt at 100°C	15.1
Viscosity Index, ASTM D2270	147
CCS Viscosity, ASTM D5293	
cP at -20°C	5,340
cP at -25°C	9,300
MRV Viscosity, ASTM D4684	
cP at -25°C	10,700
Pour Point, ASTM D97, °F (°C)	-49 (-45)
Color, ASTM D1500	L3.0
Sulfated Ash, ASTM D874, m%	0.45
TBN, ASTM D2896	5.0
Zinc, ppm	900

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Agricultural Products

Mystik® Bar and Chain Lubricant



OVERVIEW



- A highly functional oil used on chain saws for suppressing dust, reducing friction and protecting the chain links, rivets, and bar from wear, heat, and corrosion.
- A great choice for loggers, as well as home and ranch users.
- Utilizes special components to reduce wear, guard against rust, and enhance metal adhesion to reduce spatter.

FEATURES & BENEFITS



- Designed for use over a wide temperature range. Clings in summer. Flows in winter.
- Lubricates and cools chain to maintain proper chain length and prolong cutter sharpness.
- · Polymer additive controls spatter.
- Guards against rust.
- · Protects against rivet wear.

APPLICATIONS



· For use in all brands of chain saws.

NOTE: NOT FOR USE IN ENGINES! Use Mystik JT-4® 2-Cycle Lawn and Garden Engine Oil, Material Code 663091002, where 2-cycle engine oil is specified.

PROPERTIES



Typical Properties for Mystik Bar and Chain Lubricant:

Material Code	663605002
SAE Grade	30
ISO Viscosity Grade	100
Gravity, °API ASTM D4052	30
Pounds/Gallon @ 60°F	7.3
Flash Point, COC, °F (°C) ASTM D92	295 (146)
Pour Point, °F (°C) ASTM D97	-40 (-40)
Viscosity ASTM D445	
cSt at 40°C	90
cSt at 100°C	11
Appearance, Color	Dark Amber

Mystik is a registered trademark of CITGO Petroleum Corporation. All other registered trademarks or trademarks are the property of their respective owners. Values shown are typical values only and do not constitute a specification. The information contained herein is subject to change without notice.

CITGO Petroleum Corporation Houston, Texas Customer Service Line 1-800-331-4068 LubesCS@CITGO.com Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Online at www.mystiklubes.com

Manufactured in USA

Agricultural Products

Mystik® Turbine Drip Oil



OVERVIEW



 Lubricates dripper lubrication systems for irrigation water well line shaft bearings where a food grade product is NOT required.

FEATURES & BENEFITS



• Formulated with highly refined lubricating base oils and a foam suppressant.

APPLICATIONS



NOTE: This lubricant is not recommended for use where a food grade quality lubricant is required. This product should not be used for potable water well pump lubrication. It is the user's responsibility to ensure proper selection of lubricating oil for agricultural irrigation and related systems; refer to applicable regulatory agency requirements.

PROPERTIES





Material Code	663435002
SAE Grade	10W
ISO Grade	32
Gravity, °API ASTM D4058	34
Density, lb/gal at 60°F	7.1
Specific Gravity @ 60°F ASTM D1298	0.85
Viscosity, Brookfield @ -25°C, cP ASTM D2893	6400
Viscosity ASTM D445	
cSt at 40°C	32
cSt at 100°C	5.2
SUS at 100°F	150
SUS at 210°F	42.4
Viscosity Index ASTM D2270	108
Flash Point, COC, °F (°C) ASTM D92	380 (193)
Pour Point, °F (°C) ASTM D97	-38 (-39)
Color, ASTM D1500	0.5

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CITGO
Petroleum Corporation
Houston Tayas

Customer Service Line 1-800-331-4068 LubesCS@CITGO.com Product Answer Line 1-800-248-4684 lubeshelp@CITGO.com

Online at www.mystiklubes.com

Manufactured in USA

Mystik® Non-Detergent General Purpose Oils



OVERVIEW



 Designed for use in non-critical applications where a general purpose oil is desired, including low-pressure hydraulic systems such as hydraulic jacks and air compressors requiring a non-detergent type lubricant.

FEATURES & BENEFITS



Available in SAE 10W, 20W-20, 30 and 40 viscosity grades.

APPLICATIONS



- For use in low-pressure hydraulic systems and compressors where a non-detergent lubricant is required.
- Not recommended for use in gasoline or diesel engines.
- Refer to equipment owner's manual for proper lubricant recommendation.

PROPERTIES





Material Code	663111002	663112002	663113002	663103002
SAE Grade	10W	20W-20	30	40
ISO Grade (Approx.)	32	68	100	150
Density, lb/gal at 60°F (Approx.)	7.54	7.6	7.65	7.6
Viscosities (Approx.):				
cSt at 100°C	5.0	8.0	11	14.0
cSt at 40°C	29	62	119	154
SUS at 210°F	44	54	_	_
SUS at 100°F	165	340	_	_
Viscosity Index	95	95	95	90
Flash Point, ASTM D92, °F (°C)	380 (193)	395 (202)	425 (218)	430 (221)
Pour Point, ASTM D97, °F (°C)	-25 (-32)	-10 (-23)	-5 (-20)	0 (-18)

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Manufactured in USA

SAE J300 — SAE VISCOSITY GRADES FOR ENGINE OILS

SAE Viscosity Grade	Low-Tempurature Cranking Viscosity ⁽³⁾ (mPa•s) Max	Low-Tempurature (°C) Pumping Viscosity ⁽⁴⁾ (mPa•s) Max with No Yield Stress	Low-Shear- Rate Kinematic Viscosity ⁽⁵⁾ (mm²/s) at 100°C Min	Low-Shear- Rate Kinematic Viscosity ⁽⁵⁾ (mm²/s) at 100°C Max	High-Shear- Rate Kinematic Viscosity ⁽⁵⁾ (mPa•s) at 100°C Min
0W	6200 at -35	60 000 at -40	3.8	_	_
5W	6600 at -30	60 000 at -35	3.8	_	_
10W	7000 at -25	60 000 at -30	4.1	_	_
15W	7000 at -20	60 000 at -25	5.6	_	_
20W	9500 at -15	60 000 at -20	5.6	_	_
25W	13 000 at -10	60 000 at -15	9.3	_	_
8	_	_	4.0	<6.1	1.7
12	_	_	5.0	<7.1	2.0
16	_	_	6.1	<8.2	2.3
20	_	_	6.9	<9.3	2.6
30	_	_	9.3	<12.5	2.9
40	_	_	12.5	<16.3	3.5 (0W-40, 5W-40, and 10W-40 grades)
40	_	_	12.5	<16.3	3.7 (15W-40, 20W- 40 and 25W-40, 40 grades)
50	_	_	16.3	<21.9	3.7
60	_	_	21.9	<26.1	3.7

Notes — 1 mPa \bullet s = 1 cP; mm 2 /s = 1 cSt

SAE J306 — AUTOMOTIVE GEAR LUBRICANT VISCOSITY CLASSIFICATION

SAE Viscosity Grade	Maximum Temperature for a Viscosity of 150 000 cP, °C ^(1,2)	Kinematic Viscosity at 100°C, cSt ⁽³⁾ Minimum ⁽⁴⁾	Kinematic Viscosity at 100°C, cSt ⁽³⁾ Maximum
70W	-55 ⁽⁵⁾	4.1	_
75W	-40	4.1	_
80W	-26	7.0	_
85W	-12	11.0	_
80	_	7.0	<11.0
85	_	11.0	<13.5
90	_	13.5	<18.5
110	_	18.5	<24.0
140	_	24.0	<32.5
190	_	32.5	<41.0
250	_	41.0	_

NOTE-1cP = 1 mPa•s; 1 cSt = 1mm²/s

All values, with the exception of the low-tempurature cranking viscosity, are critical specifications as defined by ASTM D3244 (see text, Section 7.)

^{2.} ASTM D5293: Cranking viscosity — The non-critical specification protocol in ASTDM D3244 shall be applied with a P value of 0.95.

^{3.} ASTM D4684: Note that the presence of any yield stress detectable by this method constitutes a failure regardless of viscosity.

^{4.} ASTM D445

^{5.} ASTM D4683, ASTM D4741, ASTM D5481, or CEC L-36-90.

^{1.} Using ASTM D 2983.

^{2.} Additional low-temperature viscosity requirements may be appropriate for fluids intended for use in light duty synchronized manual transmissions. See text.

^{3.} Using ASTM D 445.

^{4.} Limit must also be met after testing in CEC L-45-A-99. Method C (20 hours.)

^{5.} The precision of ATSM Method D2983 has not been established for determinations made at temperatures below -40°C. This fact should be taken into consideration in any producer-consumer relationship.

^{*}SAE J2360 replaced MIL-PRF-2105E as a world-wide standard for Automotive Gear Lubricants for Commercial and Military use. The gear lubricant shall meet the limits for classification described in SAE J306.

COMPARATIVE VISCOSITY CLASSIFICATIONS

ISO Viscosity Grade

			2		2				
	22	32	46	89	100	150	220	320	460
Vis. @ 40 °C Min. cSt Max. cSt	19.8 24.2	28.8 35.2	41.4	61.2 74.8	90	135 165	198 242	288	414 506
Vis. @ 100 °F - Min. SUS Max. SUS	96 115	135 164	191	No Requirement* 280 410 345 500	410 500	615 750	900	1310	1880
Vis. @ 100 °C - Min. cSt Max. cSt	4.0	4.97	6.22	No Requirement* – 7.96 10.30 9.09 11.82	ment*10.30	13.56 15.51	17.50	22.40 25.50	28.30 32.30
			AGM₽	AGMA Lubricant Number	umber				
		1	2	3	4	3	5	9	7
Vis. @ 40 °C Min. cSt Max. cSt		41.1	61.2 74.8	90	135	198	38	288 352	414
Vis. @ 100 °F Min. SUS Max. SUS		193	284	No Requirement* 417 510	ment* 765	918	22	1335 1632	1919
Vis. @ 100 °C - Min. cSt Max. cSt		6.22	7.96	No Requirement* 10.30 11.82	ament* ——— 13.56 15.51	17.	17.50 19.96	22.40 25.50	28.30 32.30

"Viscosities given are not required; however, for "informational purposes," viscosities listed are calculated assuming an oil with V.I. of 95.

Mystik Grease Characteristics Chart								
	NLGI Grade	Base Oil Type (Mineral, Synthetic or Blend)	EP/AW (Enhanced Load Carrying)	Water Resistance	Rust Protection	Saltwater Rust Protection	Low Temperatures	High Temperatures
JT-6 Heavy Duty SynBlend 460	2	Blend	++	++	++	+		+
JT-6 High Temp	1 2	Min. Min.	++	+	+		+	+
JT-6 High Temp 3% Moly	2	Min.	++	+	+			+
JT-6 Industrial Robot Grease JT-6 Low Temp	2	Blend Min.	++	+	+		++	
JT-6 Low Temp SynBlend	2	Blend	++	+	+		++	+
JT-6 Marine Multi-Purpose JT-6 Multi-Purpose	2	Min. Min.	+	+	+	++		
JT-6 Synthetic 100	1	Syn.	++	+	++	++	++	++
JT-6 Synthetic 220	2 00	Syn. Syn.	++	+	++	++	++	++
JT-6 Synthetic 460	1 2	Syn. Syn.	++	+				
JT-6 Synthetic Electric Motor	2	Syn.		+	++		+	+
AluPlex Plunger	000	Min. Min.	++		+		+	+
AluPlex Plunger Low Temp	000	Min.	++		+		++	+
CalSuPlex 5% Moly CalSuPlex Multi-Purpose	2	Min. Min.	++	+	+			+
Centralized System	0-00	Min.	+	+	+		+	+
Cotton Picker	00	Min.			+		+	
Curve Rail	0 1	Min. Min.		+			+	
General Purpose	2	Min.	+	+	+			
Hign Speed Coupling	1 00-000	Min. Min.	++	++	+		+	
Lithium Extreme Pressure	0 1 2	Min. Min. Min.	+ + + +		+ + + +		+	
LithoPlex 3% Moly	1 2	Min. Min.	++	+	+		+	+
LithoPlex 5% Moly	1 2	Min. Min.	++	+	+		+	+ +
LithoPlex Dye Free	1	Min.	++		+			+
LithoPlex Industrial	1 2	Min. Min.	++	+	+		+	+
LithoPlex Mining	1 2	Min. Min.	++		+		+	+ +
LithoPlex Multi-Purpose	1 2	Min.	++	+	+		+	+
		ivilf1.	++	+	+			+

Mystik Grease Characteristics Chart										
	NLGI Grade	Base Oil Type (Mineral, Synthetic or Blend)	EP/AW (Enhanced Load Carrying)	Water Resistance	Rust Protection	Saltwater Rust Protection	Low Temperatures	High Temperatures		
LithoPlex Multi-Purpose Red	2	Min.	++	+	+			+		
MithoPlex Pellet Mill	2	Min.	++	+	+		+	+		
LithoPlex Plunger 320	000	Min.	++		+		+	+		
	00	Min.	++		+		+	+		
LithoPlex Power Tool	2	Min.	++		+			+		
LithoPlex Red Tacky	1	Min.	+	+	+		+	+		
Open Gear #1.5	1 1/2	Min.	++		+					
Railroad Traction Motor Gear	Simi-Fluid	Min.	+							

+ Suitable ++ Recommended

NLGI GREASE CLASSIFICATIONS

The following table shows the worked penetration values for the various NLGI grades of grease.

NLGI Number	ASTM Worked Penetration at 77°F±1° (25°C±0.5°)
000	445-475
00	400-430
0	355-385
1	310-340
2	265-295
3	220-250
4	175-205
5	130-160
6	85-115

ASTM D4950 STANDARD CLASSIFICATION AND SPECIFICATIONS FOR AUTOMOTIVE SERVICE GREASES

Service Category "L" Chassis Grease

LB – Chassis and universal joints subject to water contamination and heavy loads. Usable temperature -40°F to 248°F with relubrication intervals greater than 2000 miles.

Service Category "G" Wheel Bearing Grease

GC – Lubricate wheel bearings over a wide temperature range. Temperatures from -40°F with frequent excursions to 320°F and occasional to 392°F.





GREASE THICKENER COMPATIBILITY CHART

Seos unitos as talonas	_	_	_	_	_	_	_	_	_	_	ပ
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38 14111	-	В	၁	I	В	ı	၁	၁	၁	*_	_
Stellotto to	-	၁	၁	ı	ı	ı	3	၁	၁	*_	_
Selolius alginos de la colorio	_	_	_	_	_	၁	_	_	_	_	_
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anulun	_	၁	ပ	1	В	1	၁	В	၁	*_	_
	၁	_	В	-	-	-	-	_	_	*_	_
General Guide - Exceptions Are Possible	Aluminum Complex	Calcium Stearate	Calcium 12-Hydroxy †	Calcium Complex	Calcium Sulfonate	Clay	Lithium Stearate	Lithium 12-Hydroxy	Lithium Complex	Polyurea	Sodium Soap

C - Compatible B - Borderline I - Incompatible I* - Dependent Upon Type

† - Anhydrous Calcium

Lubricant Storage and Handling and Shelf Life Guidelines

Key Storage and Handling Tips

Proper storage and handling of lubricants is crucial to maintaining the product integrity. There are five key factors to proper lubricant storage: keep it clean, keep it cool, keep it dry, know how to spot contamination, and practice FEFO (first expired, first out) inventory management.

Keep It Clean

Contamination is generally thought of as particulate (dust, dirt, etc.) and water. It can come from ambient air, precipitation, or dirty transfer equipment. All transfer equipment should be labeled or color coded for a specific product and dedicated to that product. Pumps and hoses should be dedicated or well flushed between product transfers. Store product handling equipment in a cabinet to minimize the chance of contamination. Keep drums indoors. In-use drums should have a desiccant filter breather attached to the drum's small bung opening. Drums stored outdoors should be stored on their sides and have the bungs positioned at the 3:00 and 9:00 positions to reduce drum "breathing" during temperature cycles.

Keep It Cool

The optimum storage temperature for most lubricants is 32–77°F. Temperature extremes and proximity to sources of heat should be avoided. Products containing water (emulsifiable metalworking fluids, fire resistant hydraulic fluids) must be kept from freezing. Exposure to direct sunlight should be avoided. Temperature cycling will cause drums to "breathe," when they expand and contract, which can draw in dirt and moisture from the air during contraction. This can occur even when drums are sealed.

Keep It Dry

Water contamination reduces oil life and equipment life through increased wear, corrosion, oxidation, additive depletion, increased viscosity, and filter plugging. Pumps, hoses, and other transfer equipment must be kept dry. Lubricants can absorb water from humid air and condensation. Do not wash down drums that are in storage. Drums stored on the ground or bare concrete will rust more quickly. Drums should be stored on racks, wooden blocks, or pallets.

Know How to Spot Contamination

New oil should be bright and clear. Contamination with water can cause a hazy or milky appearance, especially as the oil cools. Hazy appearance or significant sediment in the bottom of the container can indicate particulate contamination. A significant change in color may indicate oxidation or mixing with a different oil. The presence of gel or a sticky residue at the bottom of a container may indicate additive separation. A pungent odor may indicate oxidation or bacterial contamination (especially water-containing metalworking products). Normal lubricant aging is typically indicated by a gradual color change, minor settling of additives, or minor surface oil separation in grease.

Practice FEFO (First Expired, First Out) Inventory Management

The stock with the earliest expiration date should be used first, regardless of when it was received, to avoid excessive aging of product. Follow the shelf life guidelines below. The CITGO trace code includes date information. The trace code format is four or five numbers (batch number), letter (usually O or C indicating the blend plant location), and four digits indicating the date. The date format is the Julian date – the three-digit numerical day of the year followed by the last digit of the year.

Best in Class Storage and Handling Considerations

Lube Room Design

A well-designed lube room is one which holds the right amount – enough to cover the needs plus some contingency, but not so much that the product is held beyond its shelf life. The lube room should be well-organized, with space for totes and drums, shelves for storage of pails, cans, tubes, etc., and storage cabinets for in-use containers and grease guns.

Bulk Oil Storage

Bulk oil storage tanks should be sized to hold the appropriate volume. Tank size can be determined by analyzing the rate of consumption, based on normal use and any emergency situation that might arise. It should also take into account the normal product delivery time. This information allows for proper bulk oil tank sizing.

Packaged Lubricant Storage

Packaged lubricants should be stored indoors, out of exposure to precipitation, and out of direct sunlight. Climate controlled storage is best, but not always possible. The storage location must be away from any heat sources. Drums should be stored on their sides, with the bungs at the 3:00 and 9:00 positions to keep them covers with lubricant, reducing the breathing of atmospheric air as the drums warm and cool. Metal containers should not be placed directly on bare ground or concrete. Wood blocks or pallets should be used to keep containers elevated. If the containers must be stored outdoors, a lean-to cover or waterproof tarpaulin can be used to protect them from weather and sunlight. Product containers should be positioned to make all labels visible. Follow FEFO (first expired, first out) inventory management practices.

Packaged lubricants must be handled safely. Drums of oil or grease typically weigh about 450 pounds. Grease kegs weigh about 130 pounds. Use hydraulic lifts, chain-operated hoists, forklifts, drum dollies, etc. to handle drums. Pails of oil or grease weigh about 35 pounds. Never allow drums to be dropped. Dropping can cause the welded seams to leak. Workers handling drums and other containers should wear steel-toe shoes to protect against possible injury from a drum or other container dropped or rolled on their foot.

New Oil Receiving

It is important to keep accurate records of the receipt of oil deliveries. There should be a written receiving procedure. As a minimum, keep a record of the following information: Date, Material Code and Full Product Name, Volume Received (Bulk), Number and Size of Containers, Person Performing the Receipt. A current SDS for each product should be on file. Storage areas for packaged product should be labeled with the material code and product name of the product to be stored. Bulk storage tanks, nozzles, and valves should be labeled with the material code and product name.

Product Dispensing

Bulk oil containers should be fitted with a sight glass or other level measuring device, a desiccant filter breather to keep particulate and moisture contamination out of the container, and dry-break hose connectors. Containers used for transport and top-up of lubricants should be labeled with the material code and product name. The container should have a built-in spout and the capability of being sealed when not in use.

Grease Handling and Storage

Store grease containers in a cool, clean, dry indoor area. Keep containers tightly covered. Wipe off container edges before opening to remove product. Minor separation of oil from grease is normal and expected. The oil that may separate from grease upon storage can be mixed back into the grease using a clean spatula or similar tool. If grease becomes cold in storage, place it in a warm location for a sufficient time to bring it to a satisfactory temperature for dispensing. Never use a drum heater or place grease in a hot room. All grease handling tools (spatulas, pumps, follower plates, etc.) must be clean before using in contact with grease. The surface of grease in a partially used container should be level and smooth, with any void spaces filled in. Grease tubes should be stored upright with the removable cap up.

Shelf Life Guidelines

Lubricant shelf life is very sensitive to storage and handling. Air, light, moisture, and temperature can all have negative effects on the condition of unused lubricants.

Even if a stored product still meets its original specifications, consideration should be given to whether it meets the OEM, licensing, or performance requirements of the equipment in which it will be used, particularly if the equipment is under warranty, as specifications and performance categories change over time.

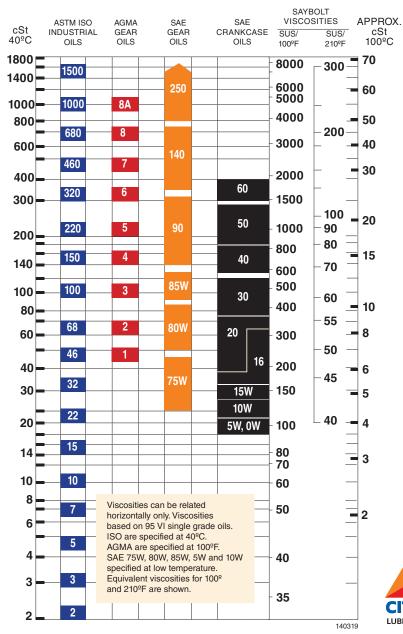
The below chart should be used as a starting point for considering the suitability of stored products. The CITGO Product Answer Line is available by phone and email to help you make such assessments.

Type of product	Expected shelf life in optimal conditions	Special considerations	Common signs of possible storage instability
Heavy Duty Engine Oils (Diesel Engines)	5 years	Ensure product meets specifications for intended use	Significant sediment (more than a trace) Cloudy appearance (moisture) Strong odor (oxidation, contamination)
Passenger Car Motor Oils (Gasoline Engines)	5 years	Ensure product meets specifications for intended use	Significant sediment (more than a trace) Cloudy appearance (moisture) Strong odor (oxidation, contamination)
4-Cycle Small Engine Oils	5 years	Ensure product meets specifications for intended use	Significant sediment (more than a trace) Cloudy appearance (moisture) Strong odor (oxidation, contamination)
2-Cycle Small Engine Oils	2 years	Ensure product meets specifications for intended use	Thickening or volume loss due to evaporation of solvent

Industrial Gas Engine Oils	5 years	Ensure product meets specifications for intended use	Significant sediment (more than a trace) Cloudy appearance (moisture) Strong odor (oxidation, contamination)
Railroad Engine Oils	5 years	Ensure product meets specifications for intended use	Significant sediment (more than a trace) Cloudy appearance (moisture) Strong odor (oxidation, contamination)
Manual and Automatic Transmission Fluids	5 years	Ensure product meets specifications for intended use	Significant sediment (more than a trace) Cloudy appearance (moisture) Strong odor (oxidation, contamination)
Automotive Gear and Axle Lubricants	5 years	Ensure product meets specifications for intended use	Significant sediment (more than a trace) Cloudy appearance (moisture) Strong odor (oxidation, contamination)
Tractor Transmission / Hydraulic Fluids	5 years	Ensure product meets specifications for intended use	Significant sediment (more than a trace) Cloudy appearance (moisture) Strong odor (oxidation, contamination)
Process Oils	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
General Purpose Oils	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Bearing and Circulating Oils	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Mineral and Synthetic Turbine Oils	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Mineral and Synthetic Hydraulic Fluids (except food grade)	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Fire-resistant Water Glycol Hydraulic Fluids (including food grade)	2 years	Avoid freezing temperatures, as water component may seperate	Product Seperation
Mineral and Synthetic Industrial Gear Oils (except food grade)	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Cylinder Oils	2 years	Avoid freezing tempera- tures, as water compo- nent may seperate	Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Open Gear Lubricants	2 years		Loss of volume due to solvent evaporation
Air Compressor Lubricants (except food grade)	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)

Natural Gas Compressor Lubricants	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Industrial Gas Compressor Lubricants	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Refrigeration Compressor Lubricants (except food grade)	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Metalworking Fluids (neat)	3 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Metalworking Fluids (emulsifiable)	2 years	Avoid freezing temperatures, as water may separate	Product separation
Greases: Lithium, Lithium Complex, Calcium, Calcium Sulfonate	3 years	Store containers upright to minimize oil separation Store tubes upright to prevent leakage	Excessive oil separation Significant change in consistency from original NLGI grade Color or odor change
Greases: Aluminum Complex	1 year	Store containers upright to minimize oil separation Store tubes upright to prevent leakage	Excessive oil separation Significant change in consistency from original NLGI grade Color or odor change
Food Grade Lubricants	5 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Food Grade Greases: Aluminum Complex	1 year	Store containers upright to minimize oil separation Store tubes upright to prevent leakage	Excessive oil separation Significant change in consistency from original NLGI grade Color or odor change
Food Grade Greases: Calcium and Calcium Sulfonate	3 years	Store containers upright to minimize oil separation Store tubes upright to prevent leakage	Excessive oil separation Significant change in consistency from original NLGI grade Color or odor change
Vegetable Oil Based Biodegradable Lubricants	2 years		Cloudy appearance (moisture) Color or odor change (oxidation, contamination)
Other types of lubricants not listed	Contact the CIT	GO Product Answer Line	at 800-248-4684 or lubeshelp@citgo.

Approximate Equivalence of Viscosity Grading Systems





PRODUCT INDEX

Approximate Equivalence of Viscosity	Mystik® JT-6® Synthetic 100 #1 Grease 71-72
Grading Systems	Mystik® JT-6® Synthetic 220 #2 Grease
ASTM D4950 Standard Classification and Specifications	Mystik® JT-6® Synthetic 460 #00 Grease
for Automotive Service Greases	Mystik® JT-6® Synthetic 460 #1 & #2 Grease
Comparative Viscosity Classifications	Mystik® JT-6® Synthetic Electric Motor #2 Grease 79-80
Grease Thickener Compatibility Chart	Mystik® JT-7® Extended Range Full Synthetic
Lubricant Storage and Handling and	Gear Lubricants
Shelf Life Guidelines	Mystik® JT-7® Multi-Purpose
Mystik® AluPlex® Plunger Greases	Gear Lubricants
Mystik® Ammonia Compressor Oil 68	Mystik® JT-8® Premium Gasoline Motor Oils 1-2,138-139
Mystik® Anti-Leak Industrial Oil	Mystik® JT-8® Premium Gasoline
Mystik® Bar and Chain Lubricant	Synthetic Motor Oils
Mystik® CalSuPlex® 5% Moly #2 Grease 82-83	Mystik® JT-8® Synthetic Blend Super Heavy Duty
Mystik® CalSuPlex® Multi-Purpose #2 Grease 84-85	Engine Oils 6-7, 143-144
Mystik® Centralized System #0-00 Grease 86-87	Mystik® JT-8® Synthetic Blend Super Heavy Duty
Mystik® Cotton Picker #00 Grease	Engine Oils Monogrades 5, 142
Mystik® Curve Rail Greases	Mystik® JT-8® Synthetic Blend Super Heavy Duty Engine
Mystik® Gear Lubricant SAE 90 41-42, 155-156	Oils SAE 10W-40 and SAE 15W-508-9, 145-146
Mystik® General Purpose #2 Grease 90	Mystik® JT-8® Synthetic Engine Oil 5W-40 10-11, 147-148
Mystik® Grease Characteristics Chart 182-183	Mystik® JT-9® LeakShield™
Mystik® High Speed Coupling Grease 91-92	AW Hydraulic Oils
Mystik® Hydraulic Jack Oil	Mystik® Lithium Extreme Pressure Greases 93-94
Mystik® JT-4® 2-Cycle Lawn and Garden	Mystik® LithoPlex® 3% and 5% Moly Greases 95-96
Engine Oil	Mystik® LithoPlex® Dye Free #1 Grease
Mystik® JT-4® 2-Cycle Premium Outboard Engine Oil . 14-15	Mystik® LithoPlex® Industrial Greases
Mystik® JT-4® 2-Cycle Premium Plus Outboard	Mystik® LithoPlex® Mining Greases
Engine Oil	Mystik® LithoPlex® Multi-Purpose Greases 102-103
Mystik® JT-4® 4-Cycle Marine Engine Oils 26-27	Mystik® LithoPlex® Multi-Purpose Red #2 Grease 104-105
Mystik® JT-4® All-In-One Outboard Engine Oil 18-19	Mystik® LithoPlex® Pellet Mill #2 Grease
Mystik® JT-4® Premium High Performance Lower Unit	Mystik® LithoPlex® Plunger 320 Greases
Gear Lubricant32	Mystik® LithoPlex® Power Tool #2 Grease 108-109
Mystik® JT-4® Sea & Snow® 2-Cycle Engine Oil 20-21	Mystik® LithoPlex® Red Tacky Greases
Mystik® JT-4® Synthetic 2-Cycle Personal Watercraft	Mystik® Lubricants Tenax® Fluids
Engine Oil	Mystik® Multi-Purpose ATF
Mystik® JT-4® Synthetic 2-Cycle Snowmobile Engine Oil 24-25	Mystik® Non-Detergent General Purpose Oils 135, 179
Mystik® JT-4® Synthetic 4-Cycle All-Terrain Vehicle	Mystik® Open Gear #1.5 Grease
Motor Oils	Mystik® Railroad Traction Motor Gear Grease
	Mystik® Rock Drill Oil 150
Mystik® JT-4® Synthetic 4-Cycle Snowmobile Motor Oil SAE 0W-40	Mystik® SX-7000® Synthetic Gear Lubricants
Mystik® JT-5® Synthetic Blend TFX	Mystik® SX-7000® Synthetic MTF
Tractor Trans-Hydraulic Fluid 43-45, 157-159	Mystik® Synthetic Multi-Vehicle ATF 50-51
Mystik® JT-5® Tractor Trans-Hydraulic Fluid 46-47, 160-161	Mystik® Terra® 340 Gas Engine Oils
Mystik® JT-6® Heavy Duty	Mystik® Terra® 500 Gas Engine Oil SAE 15W-50 121-122
SynBlend 460 #2 Grease	Mystik® Terra® Free Ashless Gas Engine Oils 123-124
Mystik® JT-6® High Temp 3% Moly #2 Grease 59-60	Mystik® TerraSyn™ Irrigation Engine Oil 125-126, 175-176
Mystik® JT-6® High Temp Grease 57-58, 166-167	Mystik® Tool Joint Compound #1
Mystik® JT-6® Industrial Robot Grease #0 61-62	Mystik® Turbine Drip Oil
Mystik® JT-6® Low Temp #2 Grease	Mystik® Twin Disc Fluid
Mystik® JT-6® Low Temp SynBlend #2 Grease 65-66	Mystik® ViscidLube® Oil Treatment
Mystik® JT-6® Marine Multi-Purpose #2 Grease 67-68	NLGI Grease Classifications
Mystik® JT-6® Multi-Purpose #2 Grease 69-70, 168-169	SAE J300 & SAE J306 Viscosity Grades
wysuk 01-0 wull-rulpose #2 Glease 09-70, 100-109	S. E 5555 & S. E 5555 VIOSOSKY GRAGOO



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