



Evolutionary Performance™

FULL SYNTHETIC

OEMs continue to evolve engine designs that demand more from motor oil. One brand has evolved right alongside – MAG 1®. MAG 1 with FMX® Technology provides unsurpassed protection and performance in every viscosity. Even our lowest viscosity oils protect better than thick oils of the past. Our advanced oil chemistry actually improves oil properties through time, retaining viscosity, friction and anti-wear benefits.



MAG 1 Full Synthetic Motor Oils are our purest and most advanced formulations. Benefits include:

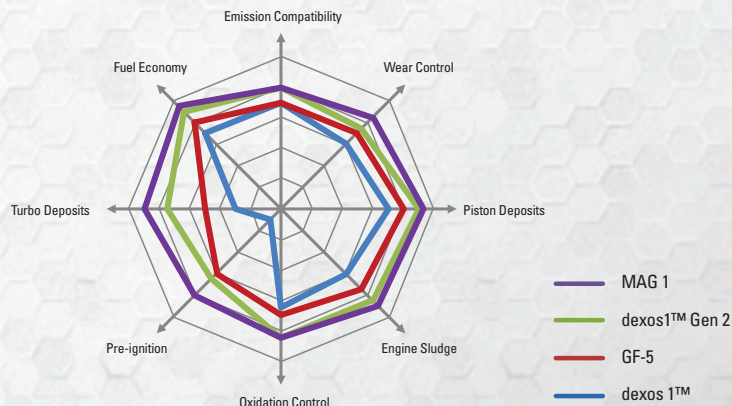
- Engineered to improve fuel mileage and to maximize horsepower and acceleration.
- Longer and better engine protection than conventional oils due to strong and uniform synthetic base oils and advanced molecules that provide a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.
- Meets or exceeds API SN Plus, SN and ILSAC GF-5 requirements.
- Created for extreme hot and cold driving conditions: stop and go, frequent short trips, heavy loads and dusty conditions.
- MAG 1 dexos1™ Gen 2 approved motor oils meet or exceed GM dexos1™ specifications for worldwide requirements for all GM automotive gasoline engines currently in use. The oils are fully licensed by GM.

¹MAG 1 Full Synthetic SAE 0W-20 and SAE 5W-30 are dexos1™ Gen 2 approved motor oils.

²Excluding MAG 1 Full Synthetic SAE 10W-30 Motor Oil.



MAG 1 dexos1™ Approved Motor Oils meet or exceed GM dexos1™ specifications for worldwide requirements for all GM automotive gasoline engines currently in use. dexos1™ Gen 2 supercedes GM 6094M and GM 4718M.



PACK SIZES

	Pack Size	Product #
Full Synthetic SAE 0W-16*	3/5 Quart	69364
	6/1 Quart	61794
Full Synthetic SAE 0W-20*	3/5 Quart	65828
	6 Gallon**	66077
	55 Gallon	65830
	330 Gallon	65832
	6/1 Quart	61792
Full Synthetic SAE 5W-20*	3/5 Quart	64192
	6 Gallon**	65445
	55 Gallon	64101
	330 Gallon	65474
	6/1 Quart	61790
Full Synthetic SAE 5W-30*	3/1 Gallon	69146
	3/5 Quart	64193
	6 Gallon**	65446
	55 Gallon	64876
	330 Gallon	65476
Full Synthetic SAE 10W-30*	6/1 Quart	61788
	3/5 Quart	64194
	55 Gallon	64883

CLAIMS

	Full Syn SAE 0W-16	Full Syn SAE 0W-20	Full Syn SAE 5W-20	Full Syn SAE 5W-30	Full Syn SAE 10W-30
API SN Plus	★	★	★	★	★
API SN	★	★	★	★	★
API SM		●	●	●	●
API SL		●	●	●	●
API SJ, SH, SG, SF		●	●	●	●
dexos1™ Gen 2		★		★	
Chrysler MS-6395		●	●	●	●
Chrysler MS-10797			●		
ILSAC GF-5		★	★	★	★
ILSAC GF-4		●	●	●	●
Ford WSS M2C945-A, M2C930-A			●		
Ford M2C153			●		
GM 6094M		●	●	●	●
GM 4718M		●		●	●

★ = Approved ● = Meets Requirements

TYPICAL PHYSICAL PROPERTIES

Properties	Test Method	Full Synthetic SAE 0W-16	Full Synthetic SAE 0W-20	Full Synthetic SAE 5W-20	Full Synthetic SAE 5W-30	Full Synthetic SAE 10W-30
Boron, wt. %	ASTM D5185	0.023	0.023	0.018	0.023	0.018
Calcium, wt. %	ASTM D5185	0.135	0.135	0.132	0.135	0.132
Cold Cranking Simulator at (°C), cP	ASTM D5293	5050 (-30)	5800 (-35)	4099 (-30)	4400 (-30)	3884 (-25)
Color	ASTM D1500	3	3	3	3	3
Flash Point °C	ASTM D92	226	226	208	227	210
Flash Point °F	ASTM D92	439	438.8	406.4	440.6	410
Foam Seq. I (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0	0/0	0/0	0/0	0/0
Foam Seq. II (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0	5/0	0/0	10/0	0/0
Foam Seq. III (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0	0/0	0/0	0/0	0/0
Gravity, °API	ASTM D287	35.09	35.66	34.58	34.93	33.86
High Temperature Foaming, static foam	ASTM D6082 (Opt A)	20/0	20/0	10/0	15/0	20/0
High Temperature/High Shear Vis at 100°C, cP	ASTM D6616	5.2	5.76	6.14	6.9	7.17
High Temperature/High Shear Vis at 150°C, cP	ASTM D5481	2.4	2.7	2.67	3.2	3.04
Magnesium, wt. %	ASTM D5185	0.059	0.059	0.043	0.059	0.043
Molybdenum, wt. %	ASTM D5185	0.0079	0.0079	0.004	0.0079	0.004
Nitrogen, wt. %	ASTM D4629	0.104	0.104	0.086	0.104	0.086
Noack Volatility, % loss	ASTM D6375	14.28	13	11.7	12	8.2
Phosphorus, wt. %	ASTM D5185	0.076	0.076	0.077	0.076	0.077
Pour Point °C (°F)	ASTM D5950	-45°C (-49°F)	-45°C (-49°F)	-45°C (-49°F)	-45°C (-49°F)	-42°C (-44°F)
Pumping Viscosity at (°C), cP	ASTM D4684	15,500 (-35)	21,000 (-40)	12,500 (-35)	15,000 (-35)	13,900 (-30)
Shear Stability, Final Viscosity in cSt	ASTM D6278	6.6	7.5	7.8	9.4	8.99
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8494	0.8465	0.852	0.8502	0.8557
Sulfated Ash, wt. %	ASTM D874	0.9	0.9	0.92	0.9	0.92
Sulfur, wt. %	ASTM D4951	0.3	0.3	0.3	0.3	0.3
TBN, mgKOH/g	ASTM D2896	7.9	7.9	7	7.9	7
Viscosity @ 40°C cSt	ASTM D445	36.08	44.59	49.86	62.09	61.71
Viscosity @ 100°C cSt	ASTM D445	7.09	8.475	8.918	10.91	10.14
Viscosity Index	ASTM D2270	163	170	160	169	151
Zinc, wt. %	ASTM D5185	0.085	0.085	0.085	0.085	0.085

*Available in Bulk **Enviro Box®

For more information, visit www.mag1.com.



Evolutionary Performance™



FULL SYNTHETIC
EUROPEAN FORMULA



MAG 1® Full Synthetic European Motor Oil is specially formulated for gasoline and diesel-fueled European cars, including those with turbocharged engines. It is made from 100% pure synthetic base oil and our most advanced additive technology, so it provides our best, longest-lasting engine protection, fuel efficiency, strength, and cleanliness.

MAG 1 Full Synthetic European Motor Oil is our purest formulation and provides outstanding fuel economy. It delivers unsurpassed protection and performance, including the following benefits:

- Engineered to improve fuel mileage and to maximize horsepower and acceleration, especially in higher rpm and turbocharged engines.
- Created for extreme hot and cold driving conditions: stop and go, frequent short trips, heavy loads and dusty conditions.
- Longer and better engine protection than conventional oils due to strong and uniform synthetic base oils and advanced molecules that provide a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.

PACK SIZES		Pack Size	Product #
	Full Synthetic European SAE 0W-40 A3/B4*	6/1 Quart	65661
	Full Synthetic European SAE 5W-30 C3*	6/1 Quart	63278
		3/1 Gallon	69142
		55 Gallon	63282
	Full Synthetic European SAE 5W-30 C3 VW 507*	6/1 Quart	66540
		3/1 Gallon	69144
		55 Gallon	66544
	Full Synthetic European SAE 5W-40 A3/B4*	6/1 Quart	62836
3/1 Gallon		69140	
55 Gallon		64880	
330 Gallon		67696	

	Full Syn European SAE 0W-40 A3/B4	Full Syn European SAE 5W-30 C3	Full Syn European SAE 5W-30 C3 VW 507	Full Syn European SAE 5W-40 A3/B4
API SN	★	★	★	★
API SM	●	●		●
API SH, SG, SF, SE, SD, SC	●	●		●
API CF		○		
ACEA C3		●	●	
ACEA A3/B3 and A3/B4	●	○		●
MB 226.5		○		
MB229.3/229.5	●			●
MB 229.31		●		
MB 229.51		●	●	
BMW LL-01	●			●
BMW LL-04		●	●	
VW 501 01				●
VW 502 00/505 00	●	●	●	●
VW 505 01		●		
VW 504 00/507 00			●	
OPEL GM-LL-B-025	●			●
Renault 0710/0700	●	●		●
Porsche A40	●	●	●	●
★ = Approved ● = Meets Requirements ○ = Suitable for Use				

TYPICAL PHYSICAL PROPERTIES					
Properties	Test Method	Full Synthetic European SAE 0W-40 A3/B4	Full Synthetic European SAE 5W-40 A3/B4	Full Synthetic European SAE 5W-30 C3	Full Synthetic European SAE 5W-30 C3 VW 507
Boron, wt. %	ASTM D5185	0.007	0.007	0.007	0.0
Calcium, wt. %	ASTM D5185	0.26	0.26	0.1836	0.1625
Cold Cranking Simulator at (°C), cP	ASTM D5293	5815 (-35)	6083 (-30)	5627 (-30)	6028 (-30)
Color	ASTM D1500	2	2	2	3
Gravity, °API	ASTM D287	35.42	33.98	34.64	34.29
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	3.7	3.7	3.56	3.58
Nitrogen, wt. %	ASTM D4629	0.089	0.089	0.095	0.1120
Noack Volatility, % loss	ASTM D6375	9	10	10	9.6
Phosphorus, wt. %	ASTM D5185	0.092	0.092	0.08	0.0762
Pour Point °C (°F)	ASTM D5950	-45°C (-49°F)	-45°C (-49°F)	-45°C (-49°F)	-45°C (-49°F)
Pumping Viscosity at (°C), cP	ASTM D4684	24,600 (-40)	28,400 (-35)	22,234 (-35)	22,000 (-35)
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8477	0.8551	0.8517	0.8535
Sulfur, wt. %	ASTM D4951	0.19	0.19	0.2	0.2194
TBN, mgKOH/g	ASTM D2896	10.3	9.8	8.0	7.0
Viscosity @ 100°C cSt	ASTM D445	12.8	13.18	12.02	12.36
Viscosity @ 40°C cSt	ASTM D445	75.09	77.27	70.01	70.4
Viscosity Index	ASTM D2270	172	173	170	172
Zinc, wt. %	ASTM D5185	0.102	0.102	0.088	0.0825

*Available in Bulk



Evolutionary Performance™



HIGH MILEAGE
SYNTHETIC BLEND



MAG 1® High Mileage Synthetic Blend Motor Oil is specially formulated to extend engine life for vehicles that have already exceeded 75,000 miles. It conditions seals, helps to prevent leaks, features superior oxidation stability, and provides extra protection against sludge, deposit buildup, and high temperatures. Contains superior additives and properties that outperform conventional motor oils.

Delivers the following benefits:

- Minimizes oil consumption and maximizes power output.
- Meets and exceeds U.S. and import car and light truck warranty requirements for all automotive gasoline engines currently in use.
- Resists thermal breakdown and decreases deposit formation for longer, better engine protection than conventional oils.
- Provides a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.

PACK SIZES

	Pack Size	Product #
High Mileage Synthetic Blend SAE 5W-20*	6/1 Quart	64829
	3/5 Quart	66734
	6 Gallon**	65452
	55 Gallon	64831
High Mileage Synthetic Blend SAE 5W-30*	330 Gallon	69202
	6/1 Quart	64835
	3/5 Quart	66732
	6 Gallon**	65451
High Mileage Synthetic Blend SAE 10W-30*	55 Gallon	64837
	330 Gallon	67694
	6/1 Quart	64839
	3/5 Quart	67180
High Mileage Synthetic Blend SAE 10W-40*	6 Gallon**	65665
	55 Gallon	62910
	6/1 Quart	64841
	3/1 Gallon	69148
	55 Gallon	00618

CLAIMS

	High Mileage Synthetic Blend SAE 5W-20	High Mileage Synthetic Blend SAE 5W-30	High Mileage Synthetic Blend SAE 10W-30	High Mileage Synthetic Blend SAE 10W-40
API SN Plus	★	★	★	★
API SN	★	★	★	★
API SM	●	●	●	●
API SL	●	●	●	●
API SJ, SH, SG, SF	●	●	●	●
Chrysler MS-6395	●	●	●	
Chrysler MS-10797	●			
ILSAC GF-5	★	★	★	
ILSAC GF-4	●	●	●	
Ford WSS M2C945-A, M2C930-A, M2C153	●	●		
GM 6094M	●	●	●	
★ = Approved ● = Meets Requirements				

TYPICAL PHYSICAL PROPERTIES

Properties	Test Method	High Mileage Synthetic Blend SAE 5W-20	High Mileage Synthetic Blend SAE 5W-30	High Mileage Synthetic Blend SAE 10W-30	High Mileage Synthetic Blend SAE 10W-40
Boron, wt. %	ASTM D5185	0.018	0.018	0.018	0.018
Calcium, wt. %	ASTM D5185	0.132	0.132	0.132	0.132
Cold Cranking Simulator at (°C), cP	ASTM D5293	5835 (-30)	6100 (-30)	5050 (-25)	6500 (-25)
Color	ASTM D1500	3	3	3	3
Flash Point °C	ASTM D92	206	204	206	208
Flash Point °F	ASTM D92	402.8	399.2	402.8	406.4
Foam Seq. I (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0	0/0	0/0	0/0
Foam Seq. II (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0	0/0	0/0	0/0
Foam Seq. III (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0	0/0	0/0	0/0
Gravity, °API	ASTM D287	33.3	33.36	31.42	31.14
High Temperature Foaming, static foam	ASTM D6082 (Opt A)	30/0	20/0	20/0	20/0
High Temperature / High Shear Vis at 100°C, cP	ASTM D6616	6.05	6.89	7.09	-
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	2.71	3.16	2.97	3.96
Noack Volatility, % loss	ASTM D6375	14.7	14.3	14.4	11
Magnesium, wt. %	ASTM D5185	0.043	0.043	0.043	0.043
Molybdenum, wt. %	ASTM D5185	0.004	0.004	0.004	0.004
Nitrogen, wt. %	ASTM D4629	0.084	0.086	0.086	0.086
Phosphorus, wt. %	ASTM D5185	0.077	0.077	0.077	0.077
Pour Point °C (°F)	ASTM D5950	-45°C (-49°F)	-45°C (-49°F)	-42°C (-44°F)	-39°C (-38°F)
Pumping Viscosity at (°C), cP	ASTM D4684	24,000 (-35)	29,000 (-35)	15,400 (-30)	29,600 (-30)
Shear Stability, Final Viscosity in cSt	ASTM D6278	7.31	8.5	8.58	11.5
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8586	0.8583	0.8685	0.87
Sulfated Ash, wt. %	ASTM D874	0.92	0.92	0.92	0.92
Sulfur, wt. %	ASTM D4951	0.3	0.3	0.3	0.3
TBN, mgKOH/g	ASTM D2896	7	7	7	7
Viscosity @ 40°C cSt	ASTM D445	51.92	66.07	65.28	110.1
Viscosity @ 100°C cSt	ASTM D445	8.92	11.05	10.17	15.62
Viscosity Index	ASTM D2270	153	159	142	150
Zinc, wt. %	ASTM D5185	0.085	0.085	0.085	0.085

*Available in Bulk **Enviro Box®

For more information, visit www.mag1.com.



Evolutionary Performance™



SYNTHETIC BLEND



Synthetic Blend provides extra protection and peace of mind, compared with conventional oil. It provides unsurpassed protection, even in our lightest viscosities. Protects better than the thick oils of the past.

- MAG 1® resists thermal breakdown and reduces deposit formation for longer, better engine protection than conventional oils.
- Additives work to keep engines clean.
- Provides a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.
- Meets or exceeds U.S. and import car and light truck warranty requirements for most automotive gasoline engines currently in use.

PACK SIZES	Synthetic Blend SAE 5W-20*		CLAIMS	Synthetic Blend SAE 5W-20		Synthetic Blend SAE 5W-30	
	Pack Size	Product #					
	6/1 Quart	62943		API SN Plus	★	★	
	3/5 Quart	62941		API SN	★	★	
	6 Gallon**	65666		API SM	●	●	
	55 Gallon	62909		API SL	●	●	
	330 Gallon	65579		API SJ, SH, SG, SF	●	●	
	6/1 Quart	61652		Chrysler MS-6395	●	●	
	3/5 Quart	62937		Chrysler MS-10797	●		
	6 Gallon**	65667		ILSAC GF-5	★	★	
Synthetic Blend SAE 5W-30*	55 Gallon	60181	ILSAC GF-4	●	●		
	330 Gallon	65580	Ford WSS M2C945-A, M2C930-A, M2C153	●	●		
			GM 6094M	●	●		
Synthetic Blend SAE 20W-50* Racing	6/1 Quart	62888					
★ = Approved ● = Meets Requirements							



Evolutionary Performance™



CONVENTIONAL



MAG 1® Conventional Motor Oils are formulated for older vehicles and/or high-temperature climates, if thicker oil is preferred. It also delivers the following benefits:

- Reduced friction for excellent protection against engine wear.
- High resistance to viscosity and thermal breakdown.
- Resists thermal breakdown and reduces deposit formation for longer, better engine protection than conventional oils.
- Additives work to keep engines clean.
- Provides a strong film barrier to control friction, resist wear and keep metal surfaces from coming into contact.

PACK SIZES		Pack Size	Product #
	Conventional SAE 10W-30*	6/1 Quart	61648
		3/5 Quart	62939
		2/2.5 Gallon	00502
		5 Gallon	00504
	Conventional SAE 10W-40*	55 Gallon	62848
		6/1 Quart	61650
		3/1 Gallon	69136
	Conventional SAE 20W-50*	55 Gallon	62849
		6/1 Quart	61654
		3/1 Gallon	69138
	SAE 30*	55 Gallon	62851
		6/1 Quart	61646
	SAE 40*	2/2.5 Gallon	00402
		55 Gallon	64877
		6/1 Quart	63200

	Conventional SAE 10W-30	Conventional SAE 10W-40	Conventional SAE 20W-50	SAE 30	SAE 40
API SN Plus	★	★	★		★
API SN	★	★	★	★	★
API SM	●	●	●	●	●
API SL	●	●	●	●	●
API SJ, SH, SG, SF	●	●	●	●	●
Chrysler MS-6395	●				
ILSAC GF-5	★				
ILSAC GF-4	●				
GM 6094M	●				
★ = Approved ● = Meets Requirements					

TYPICAL PHYSICAL PROPERTIES						
Properties	Test Method	Conventional SAE 10W-30	Conventional SAE 10W-40	Conventional SAE 20W-50	SAE 30	SAE 40
Boron, wt. %	ASTM D5185	0.018	0.018	0.018	0.018	0.018
Calcium, wt. %	ASTM D5185	0.132	0.132	0.132	0.132	0.132
Cold Cranking Simulator at (°C), cP	ASTM D5293	4000 (-25)	4300 (-25)	7014 (-15)	-	-
Color	ASTM D1500	3	3	3	3	3
Flash Point °C	ASTM D92	206	208	240	210	-
Flash Point °F	ASTM D92	402.8	406.4	464	410	-
Foam Seq. I (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0	0/0	0/0	0/0	0/0
Foam Seq. II (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0	0/0	0/0	0/0	0/0
Foam Seq. III (Tendency/Stability), mL	ASTM D892 (Opt. A)	0/0	0/0	0/0	0/0	0/0
Gravity, °API	ASTM D287	32.37	32.94	29.63	29.85	28.77
High Temperature Foaming, static foam	ASTM D6082 (Opt A)	20/0	20/0	10/0	10/0	0/0
High Temperature / High Shear Vis at 100°C, cP	ASTM D6616	7.04	-	-	-	-
High Temperature / High Shear Vis at 150°C, cP	ASTM D5481	3.08	4.02	4.85	3.38	4.02
Magnesium, wt. %	ASTM D5185	0.043	0.043	0.043	0.043	0.043
Molybdenum, wt. %	ASTM D5185	0.004	0.004	0.004	0.004	0.004
Nitrogen, wt. %	ASTM D4629	0.086	0.086	0.086	0.086	0.086
Noack Volatility, % loss	ASTM D6375	14.5	11.7	5.1	6.1	3.7
Phosphorus, wt. %	ASTM D5185	0.077	0.077	0.077	0.077	0.077
Pour Point °C (°F)	ASTM D5950	-42°C (-44°F)	-39°C (-38°F)	-33°C (-27°F)	-33°C (-27°F)	-33°C (-27°F)
Pumping Viscosity at (°C), cP	ASTM D4684	15,900 (-30)	33,800 (-30)	21,900 (-15)	-	-
Shear Stability, Final Viscosity in cSt	ASTM D6278	8.54	11.5	15.15	-	-
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8635	0.8605	0.8782	0.877	0.8829
Sulfated Ash, wt. %	ASTM D874	0.92	0.92	0.92	0.92	0.92
Sulfur, wt. %	ASTM D4951	0.3	0.3	0.3	0.3	0.3
TBN, mgKOH/g	ASTM D2896	7	7	7	7	7
Viscosity @ 40°C cSt	ASTM D445	63.85	96.2	169.8	87.96	127.1
Viscosity @ 100°C cSt	ASTM D445	10.35	14.83	19	10.94	13.61
Viscosity Index	ASTM D2270	150	161	127	110	103
Zinc, wt. %	ASTM D5185	0.085	0.085	0.085	0.085	0.085

*Available in Bulk

For more information, visit www.mag1.com.