

## **Product Summary Industrial Lubricants**



Nordic







## Foreword

This Product Summary guide describes the Mobil Industrial, Marine and Aviation lubricants offered by ExxonMobil.

Each branded product or series has a brief description of its key features, typical applications, major OEM and EB approvals and some general data on important physical characteristics.

The guide aims to provide a better understanding of the Mobil products for the Aviation, Marine and Industrial sectors to help select the most appropriate lubricant.

Mobil products are

- carefully formulated to meet today's demanding applications
- rigorously tested and approved to meet many major OEM and EB requirements
- manufactured to high standards and global consistency through the ExxonMobil Quality Integrity Management System.
- widely available through local ExxonMobil lubricants distributors

For additional information regarding these products, please refer to specific Product Data Sheets and Material Safety Data Sheets.

These may be obtained at www.exxonmobil.com or by calling your local ExxonMobil representative or distributor.

For more detailed technical information on these products, please contact the Mobil Technical Helpdesk for Finland: 0800 114 181, Sweden: 0200 810378,

Norway: 800 36926, Denmark: 8060 1110 or via TechDeskEurope@exxonmobil.com

Due to continued product research and development, the information contained in this guide is subject to change without notification.

The data is intended to be a guide only, and are not manufacturing specifications.

Not all products are available in all markets.

The data was last updated on 1 November 2010.





## Sustainability in motion



#### Helping productivity take off — and the world move ahead. At ExxonMobil Lubricants & Specialties, we recognize the importance of addressing sustainability in today's global marketplace — balancing economic growth, social development, and environmental protection, so that future generations are not compromised by actions taken today. We manage this challenge as part of our focused commitment to act as a responsible employer, business partner, and neighbor. Through our products, processes, and people, we put sustainability in motion.

Mobil SHC: Enhancing sustainability through synthetics.

With our industry-leading technology and engineering resources, we offer some of the most innovative lubricant and specialty products and services that help deliver tangible performanceand sustainability-related benefits. For nearly 50 years, we have been forerunners in developing

high-performance synthetic lubricants, offering innovations beyond the capabilities of conventional mineral oils. Mobil SHC lubricants provide distinct advantages — helping extend the service life of machine components and reducing oil changes, as well as potentially reducing or eliminating equipment failure and unscheduled shutdowns. All contributing to reduced energy and resource use, lower emissions, and cost savings for industrial machinery.

Longer oil life. Innovations in synthetic-based product formulations and programs help deliver longer lubricant performance cycles and extended oil life — helping reduce lubricant consumption, used oil volumes, and operating expenses. For example:
 Mobil Rarus SHC 1000 Series high-performance synthetic oils for severe-duty rotary screw and vane air compressors offer a drain interval five times longer than mineral oils in select manufacturer equipment.

— Mobil SHC Pegasus natural gas engine oils exhibited average energy savings of up to 1.5% in independent university laboratory testing and statistically validated field tests.\*

Mobil SHC provides up to 5 times the life of mineral lubricants. A longer drain interval not only saves money on lubrication purchases, it decreases environmental impact as well. • Extended equipment life. Our advanced-technology lubricants help protect and extend equipment life, which in turn significantly helps minimize the need to purchase new equipment and associated maintenance, disposal, and replacement costs. For example:

— **Mobil SHC** synthetic lubricants and greases, used in a wide range of industrial equipment applications, are recognized for longer oil performance cycles, which help extend equipment life, produce less used oil, and offer potential energy savings.

— **Mobilith SHC Series** supreme-performance synthetic greases, by protecting against wear, rust, and corrosion at high and low temperatures, extend bearing and re-greasing intervals, resulting in reduced spare part and grease use and lower maintenance costs.

• Energy portfolio diversification. Mobil SHC lubricants play a role in a number of power-generation applications used in wind turbines, geothermal and cogeneration plants, hydroelectric installations, and nuclear facilities. For example:

— **Mobilgear SHC XMP** synthetic gear oil delivers optimum equipment protection and oil performance for extreme operating conditions associated with wind turbines — lubricating more than 25,000 worldwide. Analysis of more than 15,000 used-oil samples of Mobilgear SHC XMP indicates superb wear protection and virtually no emergency maintenance alerts due to oil aging over the years. Besides protecting against wear, Mobilgear SHC XMP exceeds performance of traditional oils by extending the interval between oil changes from 18 months to three years or more.



Mobil SHC is one example of how our company supports sustainability. From our range of industrial lubricants to vehicle engine oils, to marine and aviation lubes, to basestocks and specialty offerings, our company continues to help drive business solutions and progress forward, while also protecting, advancing, and sustaining economic, environmental, and social assets.

We put sustainability in motion to keep our world moving ahead to a better future.

\*Efficiency measurements relate solely to the fluid performance when compared with ExxonMobil standard SAE 40 natural gas engine oils.

To see how we put sustainability in motion, visit exxonmobil.com/lubes. For more information about our products, please visit mobilindustrial.com.

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		Kiner	matic							
Brand name	ISO VG		osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
	VG	40°C	100°C		g/cm <sup>3</sup>	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBIL DTE 832	32	30	5,4	110	0,860	-30	224	Siemens TLV 9013 04 Alstom Power HTGD 90 117	Siemens Industrial Turbo Machinery MAT 812101, 812106, 812108 GE GEK 28143A, GE GEK 32568C, 32568E and 32568F GE GEK 46506D, GE GEK 101941A GE GEK 107395 Siemens Westinghouse PD-55125Z3 Solar ES 9-224 Class II JIS K-2213 type 2 with additives DIN 51515 L-TG	
				turbine oli turbines. N					ined gas turbines (CCGT)	applications. Also
MOBIL DTE 846	46	42	6,2	106	0,870	-30	244	Siemens TLV 9013 04 Alstom Power HTGD 90 117	Siemens Industrial Turbo Machinery MAT 812102, 812107, 812109 GE GEK 28143A GEC Alstom NBA 50001A Solar ES 9-224 Class II JIS K-2213 type 2 with additives DIN 51515 L-TG DIN 51515 L-TD	
									ined gas turbines (CCGT	) applications. Also
MOBIL	for use 32	in gas an 30	nd steam 5,4	turbines. N	1ade from 1 0,850	hydrotrea -30	ated base	e stocks. Siemens TLV 9013 04	Siemens Industrial Turbo	
DTE 732	Premiu	m perforr	nance zi	nc free turb	ine lubrica.	nt specif	ïcally des	Alstom Power HTGD 90 117 signed for use in gas ar	Machinery MAT 812101 GE GEK 28143A GE GEK 27070 GE GEK 27070 GE GEK 32568F GE GEK 46506D GE Alsthom NPA 50001A Siemens PD -55125Z3 China National Standard GB11120-89 L-TSA JIS K-2213 type 2 with additives ISO 8068 L-TGB ISO 8068 L-TGB ISO 8068 L-TGSB DIN 51515 L-TG DIN 51515 L-TD ASTM D4304 Rev A typ III and type I (2006)	tions. Based on very
	high qu	ality hydi	ro-treated	d base stoc	ks. Outstai	nding the	ermal and	d oxidation stability.		
MOBIL DTE 746	46	44	6,8	106	0,860 ine lubrica	-30	232	Siemens TLV 9013 04 Alstom Power HTGD 90 117	Siemens Industrial Turbo Machinery MAT 812102 GE GEK 28143A GEC Alsthom NPA 50001A China National Standard GB11120-89 L-TSA JIS K-2213 type 2 with additives SKODA TP 0010P/97 (CSN 65 6620) ISO 8068 L-TGB ISO 8068 L-TGB DIN 51515 L-TD ASTM D4304 Rev A typ III and type I (2006)	



Brand name	ISO VG	Kiner Visco mm²/s		Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in
MOBIL DTE OIL LIGHT				102 rculation oi			218 roturbine	e sets. Also for continuc	GE GEK 28143A GE GEK 46506D GE GEK 27070 JIS K-2213 type 2 with additives DIN 51515 L-TD DIN 51524 L-HL DIN 51517 L-CL DIN 51517 L-CL	applications requiring
MOBIL DTE OIL MEDIUM	46	45	6,9	98	0,860	-15	221		GE GEK 28143A JIS K-2213 type 2 with additives DIN 51515 L-TD DIN 51524 L-HL DIN 51517 L-CL	
				rculation oi I rapid sepa			roturbine	e sets. Also for continuo	ous lubrication of plain a	nd roller bearings.
MOBIL DTE OIL HEAVY MEDIUM	68	65	8,7	95	0,870	-15	223		JIS K-2213 type 2 with additives DIN 51515 L-TD DIN 51524 L-HL DIN 51517 L-CL	
				rculation oi I rapid sepa			roturbine	e sets. Also for continuo	ous lubrication of plain a	nd roller bearings.
MOBIL DTE OIL HEAVY	100	95.1	10.9	92	0,880	-15	237		DIN 51515-1 DIN 51517 DIN 51524	
									<u> </u>	
TERESSTIC T 32	32	32	5,4	100	0,860	-30	222	Siemens TLV 9013 04 Alstom Power HTGD 90 117	Siemens Industrial Turbo Machinery MAT 812101 China national standard GB 11120-89 L-TSA GE GEK 28143A GE GEK 46506D GE GEK 27070 GEC Alstom NBA 50001A Siemens Westinghouse PD-55125Z3 DIN 51515 L-TD JIS K-2213 type 2 with additives	
		ıality turb steam an			system oil.	Designe	d for stea	am and light duty statio	nary gas turbines. Also	land-based and
TERESSTIC T 46	46	46	6,8	100	0,870	-30	218	Siemens TLV 9013 04 Alstom Power HTGD 90 117	Siemens Industrial Turbo Machinery MAT 812102 China national standard GB 11120-89 L-TSA GE GEK 28143A GEC Alstom NBA 50001A DIN 51515 L-TD JIS K-2213 type 2 with additives	
		iality turb steam an			system oil.	Designe	d for stea	am and light duty statio	nary gas turbines. Also	land-based and
TERESSTIC T 68	68	68	8,5	95	0,870	-30	220	Alstom Power HTGD 90 117	DIN 51515 L-TD China national standard GB 11120-89 L-TSA JIS K-2213 type 2 with additives	
		ıality turb steam an			system oil.	Designe	d for stea	am and light duty statio	nary gas turbines. Also	land-based and



VG		or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
	40°C	100°C	Index	g/cm <sup>3</sup>	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
32	32	6,3	159	0,849	-54	230			
									ion stability for long
68	70	10,9	147	0,856	-54	230	Cincinnati Machine P-80		
									ion stability for long
ISO VG 150	143	18,3	144	0,862	-45	230	Flender BA 7300 Table A		
-	-	-		-					ion stability for long
ISO VG 220	216	25,2	152	0,865	-39	238	Flender BA 7300 Table A Cincinnati Machine		
Syntheti	ic gear and	d bearing	lubricant. [	Designed fo	or use in	hot and	P-74 cold conditions. Excel	lent thermal and oxidati	ion stability for long
service	life. For us	se in indus	trial enclos	ed gear se	ets and ir	n heavily	loaded plain and rollin		, ,
				-,			Table A Cincinnati Machine P-59		
									ion stability for long
460	436	44,9	159	0,867	-36	262	Flender BA 7300 Table A		
							P-35 cold conditions. Excel		ion stability for long
1000	933	79,5	164	0,868	-15	270	Flender BA 7300 Table A Cincinnati Machine		
									ion stability for long
150	150	14,8	96	0,890	-9	280	loaded plain and rollin	Morgoil Advance Lubricant Specification Rev 2.3 26 Mar 2004	
								Rev 1.1 2006 DIN 51517 L-CL	
					n of plain	bearings	s, operating with heavy	v water contamination.	Suitable for use in
320	320	23,9	95	0,900	-9	286		Morgoil Advance Lubricant Specification Rev 2.3 26 Mar 2004 Morgoil Lubricant spec Rev 1.1 2006	
					n of plain	bearings	s, operating with heavy		Suitable for use in
Morgoil 460	rolling mil 460	lls. Outsta 30,1	nding demi 95	ulsibility. 0,900	-6	296		Morgoil Advance	
								Lubricant Specification Rev 2.3 26 Mar 2004 Morgoil Lubricant spec Rev 1.1 2006	
					n of plain	bearings	s, operating with heavy		Suitable for use in
Norgoil I	93	10,7	99	0,880	-21	264		Morgan No Twist Rod Mill Lubricant	
	Synthetiservice 68 Synthetiservice ISO VG 150 Synthetiservice 320 Synthetiservice 460 Synthetiservice 1000 Synthetiservice	Synthetic gear and service life. For us         68       70         Synthetic gear and service life. For us         ISO       143         VG       150         Synthetic gear and service life. For us         ISO       216         VG       220         Synthetic gear and service life. For us         320       326         Synthetic gear and service life. For us         320       326         Synthetic gear and service life. For us         1000       933         Synthetic gear and service life. For us         150       150         Synthetic gear and service life. For us         150       150         Synthetic gear and service life. For us         320       320         Synthetic gear and service life. For us         150       150         Extra high quality         Morgoil rolling min         320       320         Synthetic gear and service life. F	Synthetic gear and bearing service life. For use in indus687010,9Synthetic gear and bearing service life. For use in indusISO14318,3VG 15014318,3Synthetic gear and bearing service life. For use in indusISO21625,2Synthetic gear and bearing service life. For use in indus32032638,6Synthetic gear and bearing service life. For use in indus32032638,6Synthetic gear and bearing service life. For use in indus46043644,9Synthetic gear and bearing service life. For use in indus100093379,5Synthetic gear and bearing service life. For use in indus15015014,832032023,9Extra high quality circulation Morgoil rolling mills. Outstat46046030,146046030,1Extra high quality circulation Morgoil rolling mills. Outstat46046030,1I9310,7	Synthetic gear and bearing lubricant. If service life. For use in industrial enclose687010,9147Synthetic gear and bearing lubricant. If service life. For use in industrial enclose18,3144VG 15014318,3144VG 15014318,3144VG 22014318,3144VG 22021625,2152Synthetic gear and bearing lubricant. If service life. For use in industrial enclose150169Synthetic gear and bearing lubricant. If service life. For use in industrial enclose32032638,632032638,6169169Synthetic gear and bearing lubricant. If service life. For use in industrial enclose150150100093379,5164Synthetic gear and bearing lubricant. If service life. For use in industrial enclose100093379,5164159Synthetic gear and bearing lubricant. If service life. For use in industrial enclose100093379,5164169164Synthetic gear and bearing lubricant. If service life. For use in industrial enclose15015015014,89615015014,89615015014,89615015014,89615015014,89615016430,195Extra high quality circulation oil for the Morgoil rolling mills. Outstanding demu460460	Synthetic gear and bearing lubricant. Designed for service life. For use in industrial enclosed gear sec687010,91470,856Synthetic gear and bearing lubricant. Designed for service life. For use in industrial enclosed gear sec14318,31440,862Synthetic gear and bearing lubricant. Designed for vG 15014318,31440,862Synthetic gear and bearing lubricant. Designed for service life. For use in industrial enclosed gear sec15021625,21520,865Synthetic gear and bearing lubricant. Designed for service life. For use in industrial enclosed gear sec32032638,61690,86632032638,61690,86632032638,61690,866Gynthetic gear and bearing lubricant. Designed for service life. For use in industrial enclosed gear sec32032638,61690,867Synthetic gear and bearing lubricant. Designed for service life. For use in industrial enclosed gear sec32032638,61690,868100093379,51640,868303032032032032,9950,900Synthetic gear and bearing lubricant. Designed for service life. For use in industrial enclosed gear sec15015014,8960,89015015014,8960,89032032032,9950,900Extra high quality circulation oil for the lubrication Morgoil rolling mills. Outstanding demulsibility.32032,0	Synthetic gear and bearing lubricant. Designed for use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir iservice life. For use in industrial enclosed gear sets and ir industrial enclosed gear sets and ir induced gear of use in industrial enclosed gear sets and ir induced gear in the industrial enclosed gear sets and ir induced gear sets and ir 	Synthetic gear and bearing lubricant. Designed for use in hot and service life. For use in industrial enclosed gear sets and in heavily687010.91470.856-54230Synthetic gear and bearing lubricant. Designed for use in hot and dervice life. For use in industrial enclosed gear sets and in heavily15014318.31440.862-45230Synthetic gear and bearing lubricant. Designed for use in hot and dervice life. For use in industrial enclosed gear sets and in heavily15021625.21520.865-39238Synthetic gear and bearing lubricant. Designed for use in hot and dervice life. For use in industrial enclosed gear sets and in heavily32032638.61690.866-36250Synthetic gear and bearing lubricant. Designed for use in hot and service life. For use in industrial enclosed gear sets and in heavily46043644.91590.867-36262Synthetic gear and bearing lubricant. Designed for use in hot and service life. For use in industrial enclosed gear sets and in heavily46043644.91590.867-36262Synthetic gear and bearing lubricant. Designed for use in hot and service life. For use in industrial enclosed gear sets and in heavily100093379.51640.868-15270Synthetic gear and bearing lubricant. Designed for use in hot and service life. For use in industrial enclosed gear sets and in heavily100093379.51640.868-15270Synthetic gear and beari	Example         Example <t< td=""><td>Carl and Part of the set of the</td></t<>	Carl and Part of the set of the



		Kiner	matic							
Brand name	ISO		osity	Viscosity	Density	Pour	Flash		Specifications	
	VG		or cSt	Index	at 15°C	Point	Point			
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBIL	150	146	14,4	96	0,890	-21	272			
VACUOLINE										
528		0 /		vy duty circ v. Suitable i		, ,	<i>.</i>	ar properties requiring	of FZG up to 12 fail loa	d stage. Has
MOBIL VACUOLINE	220	218	18,8	96	0,890	-18	284			
533				vy duty cire v. Suitable i				ar properties requiring	of FZG up to 12 fail loa	d stage. Has
MOBIL VACUOLINE	320	325	24,4	96	0,900	-12	288			
537				vy duty ciro v. Suitable i				ar properties requiring	of FZG up to 12 fail loa	d stage. Has
MOBIL VACUOLINE	460	436	29,4	95	0,900	-15	286			
546				vy duty cire v. Suitable i				ar properties requiring	of FZG up to 12 fail loa	d stage. Has

## Slideway Oils and Spindle Oils

Brand name	ISO VG	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBIL	32	32	5,3	96	0,883	-9	218	Cincinnati Machine		
VACTRA OIL NO 1	Dromium		ubricant f	ar tha lubri	action of h	orizontol	and want	P-53	rn machine tools. Outs	tanding stick alia
				aration fron					in machine tools. Outs	tanunig stick-siip
MOBIL	68	68	8,6	96	0,883	-9	218	Cincinnati Machine		
VACTRA OIL			- / -		-,	-	_	P-47		
NO 2									ern machine tools. Outs	tanding stick-slip
	perform		rapid sep	aration fron	n water ba	sed cutti	ing fluids.			
MOBIL VACTRA OIL	150	150	14,5	96	0,887	-9	230			
NO 3									ern machine tools. Outs	tanding stick-slip
				aration fron			-			1
MOBIL VACTRA OIL	220	220	18,3	96	0,892	-6	242	Cincinnati Machine P-50		
NO 4				or the lubric aration fron					ern machine tools. Outs	tanding stick-slip
MOBIL VELOCITE	2	2,1	0,95		0,802	-36	84	Cincinnati Machine P-65		
OIL NO 3				or the lubric readily sepa			d spindle	s in machine tools. Go	od oxidation and thern	nal resistance. Good
MOBIL VELOCITE		4,8	1,53		0,822	-15	102			
OIL NO 4				or the lubric readily sepa			d spindle	s in machine tools. Go	od oxidation and thern	nal resistance. Good
MOBIL VELOCITE	10	10	2,62		0,844	-15	180			
OIL NO 6				or the lubric readily sepa			d spindle	s in machine tools. Go	od oxidation and them	nal resistance. Good
MOBIL VELOCITE	22	22	22,1		0,862	-30	212			
OIL NO 10				or the lubric readily sepa			d spindle	s in machine tools. Go	od oxidation and them	nal resistance. Good

Brand name	ISO VG	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBIL SHC 522	15	15	3,6	135	0,855	-54	210			
	-	- ·			-	-	-	r excellent low and hig ing temperatures and s		iance. Maximum an
MOBIL SHC 524	32	32	6,4	144	0,852	-54	234	Denison HF-0/HF-1/ HF-2		
		0,			2	2	0	Cincinnati P-68 r excellent low and hig ing temperatures and s	, ,	nance. Maximum an
MOBIL SHC 525	1	46	8,5	154	0,851	-54	238	Denison HF-0/HF-1/ HF-2 Cincinnati P-70		
								r excellent low and hig ing temperatures and s		nance. Maximum an
MOBIL SHC 526	68	68	11,5	158	0,854	-48	216	Denison HF-0/HF-1/ HF-2 Cincinnati P-69		
								r excellent low and hig ing temperatures and s		nance. Maximum an
MOBIL DTE 10	15	16	4,1	168	0,834	-54	182		DIN 51524 pt 3 ISO 11158 HV	
EXCEL 15	New ca	tegory pre	emium qua	ality hydrau	lic oil with	potentia	l hydraulie	c/fuel efficiency		
MOBIL DTE 10 EXCEL 32	32	33	6,6	164	0,847	-54	250	Denison HF-O	DIN 51524 pt 3 ISO 11158 HV JCMAS HK-1	
	New ca	tegory pre	emium que	ality hydrau	lic oil with	potentia	l hydraulio	c/fuel efficiency		
MOBIL DTE 10 EXCEL 46	46	46	8,5	164	0.850	-45	232	Denison HF-O CM P70	DIN 51524 pt 3 ISO 11158 HV JCMAS HK-1	
	New ca	tegory pre	emium que	ality hydrau	lic oil with	potentia	l hydraulio	c/fuel efficiency		
MOBIL DTE 10	68	68	11,1	156	0,863	-39	240	Denison HF-O CM P69	DIN 51524 pt 3 ISO 11158 HV	
EXCEL 68	New ca	tegory pre	emium qua	ality hydrau	lic oil with	potentia	l hydraulio	c/fuel efficiency		
MOBIL DTE 10		100	13,0	127	0,877	-33	258		DIN 51524 pt 2 ISO 11158 HM	
EXCEL 100	New ca	tegory pre	emium qua	ality hydrau	lic oil with	potentia	l hydraulio	c/fuel efficiency		
MOBIL DTE 10		156	17,2	120	0,882	-30	256		DIN 51524 pt 2 ISO 11158 HM	
EXCEL 150	New ca	tegory pre	emium qua	ality hydrau	lic oil with	potentia	l hydraulie	c/fuel efficiency		
MOBIL DTE 21	10	10	2,7	85 min	0,845	< -24	> 166	Denison HF-0 Vickers I-286-S Vickers M-2950-S	DIN 51524 Part 2 ISO 11158 Type HM	
	maximis		clean and					nce of high quality bas and good filterability ev	ven in the presence of	
MOBIL DTE 22	22	21	4,5	98	0,860	-30	200	Denison HF-0 Vickers I-286-S Vickers M-2950-S	DIN 51524 Part 2 ISO 11158 Type HM	
								nce of high quality bas and good filterability ev		
MOBIL DTE 24	32	31	5,3	98	0,871	-27	220	Denison HF-0/HF-1/ HF-2 Vickers I-286-S Vickers M-2950-S	DIN 51524 Part 2 ISO 11158 Type HM	
								Cincinnati P-68 nce of high quality bas and good filterability ev		

		Kine	matic							
Brand name	ISO		osity	Viscosity	Density	Pour	Flash		Specifications	
	VG	<u>mm²/s</u> 40°C	or cSt 100°C	Index	at 15°C g/cm³	Point ℃	Point ℃	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBIL	46	44	6,6	98	0,876	-27	232	Denison HF-0/HF-1/	DIN 51524 Part 2	applications requiling
DTE 25					- ,			HF-2 Vickers I-286-S Vickers M-2950-S	ISO 11158 Type HM	
								Cincinnati P-70		
				-					e stocks with anti-wea	-
MODI		,		,					DIN 51524 Part 2	waler.
MOBIL DTE 26	68	71	8,5	98	0,881	-21	236	Denison HF-0/HF-1/ HF-2 Vickers I-286-S Vickers M-2950-S Cincinnati P-69	ISO 11158 Type HM	
									e stocks with anti-wea	
	maximis	sed keep c	clean and a	anti-wear p	rotection.	Long sei		and good filterability e	ven in the presence of	water.
MOBIL DTE 27	100	100	10,9	95 min	0,887	< -15	212 min			
				-					e stocks with anti-wea	-
			,			-	· · · · · · · · ·		ven in the presence of	water.
MOBIL EAL HYDRAULIC OIL 32	32	32	7,1	195	0,91	< -39	> 320	RAL BLUE ANGEL RAL-UZ 79	WGK Non Water Hazardous ISO 15380 HEES Swedish standard SS 15 54 34	
			wear envii	ronmentally	v aware hy	draulic o	il. Used ir	n a wide range of mob	ile equipment in mode	rate service
	conditic	-	1	1						
MOBIL EAL HYDRAULIC OIL 46	46	46	9,6	160	0,917	< -30	300	RAL BLUE ANGEL RAL-UZ 79	WGK Non Water Hazardous ISO 15380 HEES Swedish standard SS 15 54 34	
	High qu conditic		wear envii	ronmentally	aware hy	draulic o	il. Used ii	n a wide range of mob	ile equipment in mode	rate service
UNIVIS HVI 13	15	14	5,3	384	0,872	-60	101			
	Premiur	n nerform	ance anti-	wear hydra	ulic oil cha	aracterise	ed by ver	v hiah VI. Possess hial	h resistance to viscosit	v change
									h pots, fine instrument	
UNIVIS HVI 26		26	9,3	360	0,878	-60	103		ISO 6743-4 HV	
			-,-		-,					
	Premiur	n perform	ance anti-	wear hydra	ulic oil cha	aracterise	ed by ver	y high VI. Possess higl	h resistance to viscosit	y change.
									h pots, fine instrument	
UNIVIS N 32	32	32	6,4	151	0,873	-48	208		Vickers I-286-S Vickers M-2950-S DIN 51524 Part 3 ISO 11158 Type HV	Denison HF-0
		n high per applicatior		anti-wear	hydraulic o	il that ex	hibits hig	h VI. Can be used in a	wide variety of indust	rial, mobile and
UNIVIS N 46	46	46	8,2	152	0,875	-45	216		Vickers I-286-S Vickers M-2950-S DIN 51524 Part 3 ISO 11158 Type HV	Denison HF-0
		n high per applicatior		anti-wear l	hydraulic o	il that ex	hibits hig	h VI. Can be used in a	wide variety of indust	rial, mobile and
UNIVIS N 68	68	68	11	152	0,883	-42	222		Vickers I-286-S	Denison HF-0
									Vickers M-2950-S DIN 51524 Part 3 ISO 11158 Type HV	
		n high per applicatior		anti-wear	hydraulic o	il that ex	hibits hig	h VI. Can be used in a	wide variety of indust	rial, mobile and
MOBIL	46	46					250			
PYROTEC HFD 46	Eiro	intent ch	ophoria	id octors b		luid De	min	poololly for you in the t	inco and turbing and t	l avatama ragginia a
	HIRE RES		sprioric ac	iu ester da	seu HFD î	uid. Des	igriea esp	becially for use in turbl	ines and turbine contro	n systems requiring
QUINTO-	68									
LUBRIC										
888-68								polyolester basestock ons are important.	s HF-DU type. Good c	ompatibilty with

Brand name	ISO VG		Viscosity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		<i>mm²/s or cSt</i> 40°C 100°C			g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBIL 600 W SUPER	460	460	30,5	95	0,907	-6	282			
	L'Alla ing	,	nce, high v /orm gears	, , , , , , , , , , , , , , , , , , ,	for steam	cylinders	s. Lubrica	ation of high load and	slow moving bearing	gs and gears. Also
MOBIL EXTRA HECLA SUPER	1000	1000	42	80	0,925	3	288			
	LXIIAIIIY	,	nce, high v /orm gears	2	for steam	cylinders	s. Lubrica	ation of high load and	slow moving bearing	gs and gears. Also



Brand name	ISO VG	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBILGEAR SHC XMP 150	150	150	20,7	161	0,855	-48	240		AGMA 9005-D94 4S DIN 51517-3	approatorio rodannig
	extreme high leve	condition	s. Designe ance agair	d to provia	le excellen	t protect	ion again	st conventional wear r	uipment protection and modes such as scuffing al gear drives including	g but also provides a
MOBILGEAR SHC XMP 220	220	220	27,8	163	0,859	-45	240		AGMA 9005-D94 5S DIN 51517-3	
	extreme high leve helical, a	condition el of resistand bevel	s. Designe ance agair	d to provia 1st micropi	le excellen tting fatigu	t protecti e. Recon	ion again nmendec	st conventional wear r	uipment protection and modes such as scuffing al gear drives including	g but also provides a
MOBILGEAR SHC XMP 320		335	38,3	164	0,860	-39	240		AGMA 9005-D94 6S DIN 51517-3	
	extreme high leve helical, a	condition el of resistand bevel	s. Designe ance agair	d to provia nst micropi	le excellen tting fatigu	t protecti e. Recon	ion again	st conventional wear r	uipment protection and modes such as scuffing al gear drives including	g but also provides a
MOBILGEAR SHC XMP 460	460	460	48,7	166	0,863	-36	240		AGMA 9005-D94 7S DIN 51517-3	
	extreme high leve	condition	s. Designe ance agair	d to provia	le excellen	t protecti	ion again	st conventional wear r	uipment protection and modes such as scuffing al gear drives including	g but also provides a
MOBILGEAR SHC XMP 680	680	680	65,3	168	0,866	-30	240		AGMA 9005-D94 8S DIN 51517-3	
	extreme high leve	condition	s. Designe ance agair	d to provia	le excellen	t protecti	ion again	st conventional wear r	uipment protection and modes such as scuffing al gear drives including	g but also provides a
MOBILGEAR XMP 150	150	150	14,6	96	0,896	-27	258	Flender BA 7300 Table A	DIN 51517-3 ISO 12925-1 Type CKC	
				strial gear o micropittir		eme cond	ditions. R	ecommended for heav	vily loaded gearboxes v	with surface-hardened
MOBILGEAR XMP 220	220	220	18,8	96	0,900	-24	265	Flender BA 7300 Table A	AGMA 9005-D94 5-EP DIN 51517-3 ISO 12925-1 Type CKC	
				strial gear ( micropittii		eme conc	ditions. R	ecommended for heav	vily loaded gearboxes v	with surface-hardened
MOBILGEAR XMP 320	320	320	24,1	96	0,903	-18	268	Flender BA 7300 Table A	AGMA 9005-D94 6-EP DIN 51517-3 ISO 12925-1 Type CKC	
				strial gear o micropittir		eme cond	ditions. R	ecommended for heav	vily loaded gearboxes v	with surface-hardened
MOBILGEAR XMP 460	460	460	30,6	96	0,907	-12	270	Flender BA 7300 Table A	AGMA 9005-D94 7-EP DIN 51517-3 ISO 12925-1 Type CKC	
	hardene		etallurgies	strial gear of subject to				Recommended for hea	avily loaded gearboxes	with surface-
MOBILGEAR 600 XP 68	68	68	8,8	101	0,88	-27	230		AGMA 9005-E02-EP DIN 51517-3 ISO 12925-1 Type CKD Textron Type E-2	internel of formula in
	all types	of enclos	ed gear dr	ives with c	irculation o	or splash	lubricatio	on systems.	load-carrying propertie	es, intended for use in
MOBILGEAR 600 XP 100	100	100	11,2	97	0,884	-24	230	Flender BA 7300 Table A Müller-Weingarten DT 55 005	AGMA 9005-E02-EP DIN 51517-3 ISO 12925-1 Type CKD Textron Type E-3	
									load-carrying propertie	es, intended for use in



Brand name	ISO VG	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBILGEAR 600 XP 150	150	150	14,7	97	0,888	-24	230	Flender BA 7300 Table A Müller-Weingarten DT	AGMA 9005-E02-EP DIN 51517-3 ISO 12925-1 Type CKD	
	Extra hic	nh perform	nance deal	r oil having	outstandir	na extren	ne pressi	55 005	Textron Type E-4	es. intended for use
								on systems.	5 7 7 7	-,
MOBILGEAR	220	220	19	97	0,894	-24	240	Flender BA 7300 Table	AGMA 9005-E02-EP	
600 XP 220								A Müller-Weingarten DT 55 005	DIN 51517-3 ISO 12925-1 Type CKD Textron Type E-5	
	-		-			-			d load-carrying propert	ies, intended for use
			<u> </u>	1			1	ation systems.	,	
MOBILGEAR 600 XP 320	320	320	24,1	98	0,900	-24	240	Flender BA 7300 Table A	AGMA 9005-E06-EP DIN 51517 CLP (2004)	
								Müller-Weingarten DT 55 005	ISO 12925-1 Type L-CKD	
	Extra hig	h perform	nance geal	r oil having	outstandir	ng extren	ne pressi		load-carrying propertie	es. Intended for use
	in all typ	es of encl	osed gear	drives with	n circulatio	n or spla	sh lubric	ation systems.		
MOBILGEAR	460	460	30,6	98	0,904	-15	240	Flender BA 7300 Table	AGMA 9005-E07-EP	
600 XP 460								A Müller Weinserten DT	DIN 51517 CLP (2004) ISO 12925-1 Type CKC	
								Müller-Weingarten DT 55 005	150 12925-1 Type CKC	
	Extra hig	h perform	nance geal	r oil having	outstandir	ng extren	ne pressi		load-carrying propertie	es. Intended for use
	in all typ	es of encl	osed gear	drives with	n circulatio	n or spla	sh lubric	ation systems.		
MOBILGEAR	680	680	36,4	98	0,914	-9	240	Flender BA 7300 Table		
600 XP 680								A	DIN 51517 CLP (2004) ISO 12925-1 Type CKC	
	Extra hic	h perform	nance deal	r oil having	outstandir	na extren	ne pressi	ure characteristics and	load-carrying propertie	s. Intended for use
								ation systems.	······ ·······························	
MOBIL GLYGOYLE		85	11,5	137	1,009	-45	226			
11				lene-glycol ith mineral		sed lubrio	cant. For	use in extreme tempe	rature gear, bearing and	d circulation
MOBIL	I	177	25,1	173	1,007	-42	229			
GLYGOYLE										
22						sed lubrio	cant. For	use in extreme temper	rature gear, bearing an	d circulation
MODIL				ith mineral		10	001			
MOBIL GLYGOYLE	220	224	30,9	181	1,006	-42	221			
30	High ner	formance	poly-alky	lene-alvcol	(PAG) has	ed lubri	cant For	use in extreme tempe	rature gear, bearing an	d circulation
				ith mineral		seu iubiii	sam. i oi	use in extreme temper	aure gear, bearing an	a circulation
MOBIL	220	220	38,1	225	1,077	-30	270			NSF H1 registered
GLYGOYLE	-	_			,					5
220	Fully syn	thetic, hig	h perform	ance polya	alkylene gly	col (PAC	a) worm g	gear lubricant. Provide	excellent EP/anti-wear	protection, corrosic
						ible with	most se	als and gaskets, but no	ot with mineral oils. Pla	in and rolling contac
MODIL				pplications		20	070			NSF H1 registered
MOBIL GLYGOYLE 320	320	320	55,2	240	1,077	-30	270			
520									excellent EP/anti-wear ot with mineral oils. Pla	
				pplications			111031 36	ais and gaskets, but no	n with mineral ons. That	in and ronning contac
MOBIL	460	460	78,2	253	1,076	-30	265			NSF H1 registered
GLYGOYLE										
460									excellent EP/anti-wear	
						ible with	most se	als and gaskets, but no	ot with mineral oils. Pla	in and rolling contac
MOBIL	bearings 680	680	ariety of a 113	pplications 267	1,076	-30	265			NSF H1 registered
GLYGOYLE	000	000	113	207	1,070	-00	200			
680	Fully svr	thetic, hic	h perform	ance polva	lkvlene alv	col (PAC	a) worm	gear lubricant. Provide	excellent EP/anti-wear	protection, corrosic
									ot with mineral oils. Pla	
				pplications					, and minoral olis. Fla	



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Brand name	ISO VG	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBILGEAR SHC 3200	3200	3025	171	165	0,883	-12	240			
	, 0	h viscosity ain any so	·	avy-duty sy	nthetic lub	pricant fo	r low spe	ed, enclosed industria	l gears and plain and i	rolling bearings. Does
MOBILGEAR SHC 6800	I	8100	357	175	0,897		240			
	, ,	h viscosity ain any so	-	avy-duty sy	nthetic lub	oricant fo	r low spe	ed, enclosed industria	l gears and plain and i	rolling bearings. Does
MOBILTAC 375 NC		5000 with solvent	1600 without solvent		0,960		> 120 with solvent			
	0 /	ality, diluei water was	51	pricant for l	ubrication	of large,		ving, heavily loaded op	oen gears. Resistant to	rain, snow and



			matic							
Brand name	ISO VG		osity or cSt	Viscosity Index	Density at 15°C	Pour	Flash Point		Specifications	
		40°C	100°C	Index	g/cm <sup>3</sup>	Point ℃	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
GARGOYLE	32	29	5,6	132	0,82	<-54	230		FDA 21 CFR 178.3570	NSF H1 registered
ARCTIC SHC										
224									tion compressors and h , R-22 and other HCFC:	
GARGOYLE	68	67	10,1	136	0,835	-45	266			NSF H1 registered
ARCTIC SHC 226E										
220E									tion compressors and h	
04000/// 5		-			-		,	or use with Ammonia	, R-22 and other HCFC	
GARGOYLE	100	97	13,7	147	0,838	-45	255			NSF H1 registered
228	Fully ovp	thatia au	promo por	formanco li	ubricant s	pooifical	v dosigna	d for uso in rofrigora	tion compressors and h	loot numps
									, R-22 and other HCFC	
GARGOYLE	220	220	25	149	0,846	-39	260		FDA 21 CFR 178.3570	NSF H1 registered
ARCTIC SHC					0,010					
230	Fully syn	thetic, su	preme per	formance lu	ubricant, s	pecificall	y designe	d for use in refrigera	tion compressors and h	eat pumps.
	Outstand	ding resist	ance to th	ermal/oxida	ative degra	dation. S	Suitable fo	or use with Ammonia	, R-22 and other HCFC	s and carbon dioxide.
GARGOYLE	68	64	8,5	111	0,850	-54	211			
ARCTIC SHC										
NH 68							AO and a	lkyl benzene basesto	ocks. Recommended for	r screw and
	reciproca	ating com	pressors,	using ammo	onia as ref	rigerant.				
GARGOYLE	32	32			0,910	< -33	166 min			
ARCTIC OIL 155										
155									and excellent fluidity at v	
		ures. Foo IFC refrig	0	, cold stora	ge plants	ana man	ne applic	ations. For ammonia	refrigerant but also sele	ected naiocarbons.
GARGOYLE	68	68			0,910	< -30	180 min			
ARCTIC OIL										
300									and excellent fluidity at v	
			0	, cold stora	ge plants	and mari	ne applic	ations. For ammonia	refrigerant but also sele	ected halocarbons.
	Not for H	1FC retria	erants.							
MOBIL EAL	22		1	130	1.000	-57	236			
MOBIL EAL ARCTIC 22	22	23	4,6	130	1,000	-57	236			
		23	4,6		,			nt (EAL) for refrigera	tion compressors using	ozone-friendly HFC
	Fully syn refrigerai	23 thetic, hig nts. Based	4,6 1h perform 1 on synth	ance Enviro esised poly	onmental A ol esters (l	Awarenes POEs). N	ss Lubrica liscible w	ith HFC refrigerants.	Suitable for household	
ARCTIC 22	Fully syn refrigerai refrigerai	23 thetic, hig nts. Based tion and a	4,6 h perform d on synth ir conditio	ance Enviro esised poly ning systen	onmental A ol esters (i ns in shop	Awarenes POEs). N ping mal	ss Lubrica liscible wi		Suitable for household	
	Fully syn refrigerai	23 thetic, hig nts. Based	4,6 1h perform 1 on synth	ance Enviro esised poly	onmental A ol esters (l	Awarenes POEs). N	ss Lubrica liscible w	ith HFC refrigerants.	Suitable for household	
ARCTIC 22 MOBIL EAL	Fully syn refrigerai refrigerai 32	23 thetic, hig nts. Based tion and a 34	4,6 Ih perform d on synth ir conditio 5,8	ance Enviro esised poly ning systen 115	onmental A ol esters (i ns in shop 0,985	Awarenes POEs). N ping mal -48	ss Lubrica liscible w. Is and hot 236	ith HFC refrigerants. tels and low tempera	Suitable for household	and commercial
ARCTIC 22 MOBIL EAL	Fully syn refrigerau refrigerau 32 Fully syn refrigerau	23 thetic, hig nts. Based tion and a 34 thetic, hig nts. Based	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth-	ance Enviro esised poly ning systen 115 ance Enviro esised poly	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i	Awarenes POEs). N ping mal -48 Awarenes POEs). N	ss Lubrica liscible wi Is and hot 236 236 ss Lubrica liscible wi	ith HFC refrigerants. tels and low tempera int (EAL) for refrigera ith HFC refrigerants.	Suitable for household a ture transportation. tion compressors using Suitable for household a	and commercial
ARCTIC 22 MOBIL EAL ARCTIC 32	Fully syn refrigerau refrigerau 32 Fully syn refrigerau refrigerau	23 thetic, hig nts. Based tion and a 34 thetic, hig nts. Based tion and a	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth- ir conditio	ance Enviro esised poly ning systen 115 ance Enviro esised poly ning systen	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i ns in shop	Awarenes POEs). N ping mal -48 -48 Awarenes POEs). N ping mal	ss Lubrica liscible w Is and hor 236 236 ss Lubrica liscible w Is and hor	ith HFC refrigerants. tels and low tempera nt (EAL) for refrigera	Suitable for household a ture transportation. tion compressors using Suitable for household a	and commercial
ARCTIC 22 MOBIL EAL ARCTIC 32 MOBIL EAL	Fully syn refrigerau refrigerau 32 Fully syn refrigerau	23 thetic, hig nts. Based tion and a 34 thetic, hig nts. Based	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth-	ance Enviro esised poly ning systen 115 ance Enviro esised poly	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i	Awarenes POEs). N ping mal -48 Awarenes POEs). N	ss Lubrica liscible wi Is and hot 236 236 ss Lubrica liscible wi	ith HFC refrigerants. tels and low tempera int (EAL) for refrigera ith HFC refrigerants.	Suitable for household a ture transportation. tion compressors using Suitable for household a	and commercial
ARCTIC 22 MOBIL EAL ARCTIC 32	Fully syn refrigerau 32 Fully syn refrigerau refrigerau 46	23 thetic, hig nts. Based tion and a 34 thetic, hig nts. Based tion and a 46	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth- ir conditio 7,3	ance Enviro esised poly ning systen 115 ance Enviro esised poly ning systen 104	onmental A ol esters (i o,985 onmental A ol esters (i os in shop 0,975	Awarenes POEs). N -48 Awarenes POEs). N ping mal -42	iss Lubrica liscible wi 236 ss Lubrica liscible wi ls and ho 235	ith HFC refrigerants. tels and low tempera int (EAL) for refrigera ith HFC refrigerants. tels and low tempera	Suitable for household a ture transportation. tion compressors using Suitable for household a ture transportation.	and commercial ozone-friendly HFC and commercial
ARCTIC 22 MOBIL EAL ARCTIC 32 MOBIL EAL	Fully syn refrigerat 32 Fully syn refrigerat refrigerat 46 Fully syn	23 thetic, hig nts. Based tion and a 34 thetic, hig nts. Based tion and a 46 thetic, hig	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth- ir conditio 7,3 th perform	ance Envirc esised poly ning systen 115 ance Envirc esised poly ning systen 104 ance Envirc	onmental A ol esters (i o,985 onmental A ol esters (i os in shop 0,975 onmental A	Awarenes POEs). N ping mal -48 Awarenes POEs). N ping mal -42 Awarenes	is Lubrica liscible wi 236 iss Lubrica liscible wi s and ho 235 ss Lubrica	ith HFC refrigerants. tels and low tempera int (EAL) for refrigera ith HFC refrigerants. tels and low tempera int (EAL) for refrigera	Suitable for household a ture transportation. tion compressors using Suitable for household a	and commercial ozone-friendly HFC and commercial ozone-friendly HFC
ARCTIC 22 MOBIL EAL ARCTIC 32 MOBIL EAL ARCTIC 46	Fully syn refrigerau 32 Fully syn refrigerau refrigerau 46 Fully syn refrigerau refrigerau	23 thetic, hig nts. Based tion and a 34 thetic, hig nts. Based thetic, hig nts. Based thetic, hig nts. Based	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth- ir conditio 7,3 th perform d on synth- ir conditio	ance Enviro esised poly ning system 115 ance Enviro esised poly ning system 104 ance Enviro esised poly ning system	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i ns in shop 0,975 onmental A ol esters (i ns in shop	Awarenes POEs). N ping mal -48 Awarenes POEs). N ping mal -42 Awarenes POEs). N ping mal	Is Lubrica Is and hor Is and hor Is and hor Is and hor 235 Is and hor Is and hor I	ith HFC refrigerants. tels and low tempera int (EAL) for refrigera ith HFC refrigerants. tels and low tempera int (EAL) for refrigera	Suitable for household a ture transportation. tion compressors using Suitable for household a ture transportation. tion compressors using Suitable for household a	and commercial ozone-friendly HFC and commercial ozone-friendly HFC
ARCTIC 22 MOBIL EAL ARCTIC 32 MOBIL EAL ARCTIC 46	Fully syn refrigerau 32 Fully syn refrigerau refrigerau 46 Fully syn refrigerau	23 thetic, hig nts. Based tion and a 34 thetic, hig nts. Based tion and a 46 thetic, hig nts. Based	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth- ir conditio 7,3 th perform d on synth-	ance Enviro esised poly ning system 115 ance Enviro esised poly ning system 104 ance Enviro esised poly	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i ns in shop 0,975 onmental A ol esters (i	Awarenes POEs). N ping mal -48 Awarenes POEs). N ping mal -42 Awarenes POEs). N	Is Lubrica Is and hose Is a lubrica Is a lub	ith HFC refrigerants. tels and low tempera int (EAL) for refrigera ith HFC refrigerants. tels and low tempera int (EAL) for refrigera th HFC refrigerants.	Suitable for household a ture transportation. tion compressors using Suitable for household a ture transportation. tion compressors using Suitable for household a	and commercial ozone-friendly HFC and commercial ozone-friendly HFC
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ARCTIC 22 MOBIL EAL ARCTIC 32 MOBIL EAL ARCTIC 46	Fully syn refrigerau 32 Fully syn refrigerau refrigerau 46 Fully syn refrigerau refrigerau 68 Fully syn	23 thetic, hig nts. Based thetic, hig nts. Based thetic, hig nts. Based thetic, hig nts. Based thetic, hig thetic, hig	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth- ir conditio 7,3 th perform d on synth- ir conditio 8,3 th perform	ance Enviro esised poly ning system 115 ance Enviro esised poly ning system 104 ance Enviro esised poly ning system 101 ance Enviro	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i ns in shop 0,975 onmental A ol esters (i ns in shop 0,976	Awarenes POEs). N ping mal -48 Awarenes POEs). N ping mal -42 Awarenes POEs). N ping mal -36	Is Lubrica Is and hor Is a Lubrica	ith HFC refrigerants. tels and low tempera int (EAL) for refrigera ith HFC refrigerants. tels and low tempera int (EAL) for refrigerants. tels and low tempera int (EAL) for refrigera	Suitable for household a ture transportation. tion compressors using Suitable for household a ture transportation. tion compressors using Suitable for household a ture transportation. tion compressors using	and commercial ozone-friendly HFC and commercial ozone-friendly HFC and commercial ozone-friendly HFC
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ARCTIC 22 MOBIL EAL ARCTIC 32 MOBIL EAL ARCTIC 46 MOBIL EAL ARCTIC 68 MOBIL EAL ARCTIC 100	Fully syn refrigerau 32 Fully syn refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau	23 thetic, hig nts. Based thetic, hig	4,6 h perform d on synth- ir conditio 5,8 h perform d on synth- ir conditio 7,3 h perform d on synth- ir conditio 8,3 h perform d on synth- ir conditio 10,5 h perform d on synth- ir conditio 10,5 h perform d on synth- ir conditio 10,5	ance Envird esised poly ning system 115 ance Envird esised poly ning system 101 ance Envird esised poly ning system 92 ance Envird esised poly ning system 92 ance Envird esised poly ning system 92 ance Envird esised poly ning system 90 ance Envird	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i ns in shop 0,975 onmental A ol esters (i ns in shop 0,966 onmental A ol esters (i ns in shop 0,966	Awarenes POEs). N ping mal -48 Awarenes POEs). N ping mal -36 Awarenes POEs). N ping mal -30 Awarenes POEs). N ping mal -30	Is and hor Is and	ith HFC refrigerants. tels and low tempera int (EAL) for refrigerants. tels and low tempera ith HFC refrigerants. tels and low tempera	Suitable for household a ture transportation. tion compressors using Suitable for household a ture transportation.	and commercial ozone-friendly HFC
ARCTIC 22 MOBIL EAL ARCTIC 32 MOBIL EAL ARCTIC 46 MOBIL EAL ARCTIC 68 MOBIL EAL ARCTIC 100	Fully syn refrigerau 32 Fully syn refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau	23 thetic, hig nts. Based thetic, hig nts. Based	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth- ir conditio 7,3 th perform d on synth- ir conditio 8,3 th perform d on synth- ir conditio 10,5 th perform d on synth- ir conditio 10,5 th perform d on synth- ir conditio 10,5	ance Envird esised poly ning system 115 ance Envird esised poly ning system 101 ance Envird esised poly ning system 92 ance Envird esised poly ning system 92 ance Envird esised poly ning system 90 ance Envird	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i ns in shop 0,975 onmental A ol esters (i ns in shop 0,966 onmental A ol esters (i ns in shop 0,966	Awarenes POEs). N ping mal -48 Awarenes POEs). N ping mal -36 Awarenes POEs). N ping mal -30 Awarenes POEs). N ping mal -30	Is and hor liscible will as Lubrica liscible will as Lubrica liscible will as Lubrica liscible will and hor 240 ss Lubrica liscible will and hor 250 ss Lubrica liscible will as Lubrica liscible will as Lubrica liscible will as Lubrica liscible will as Lubrica	ith HFC refrigerants. tels and low tempera int (EAL) for refrigerants. tels and low tempera ith HFC refrigerants. tels and low tempera	Suitable for household a ture transportation. tion compressors using Suitable for household a ture transportation.	and commercial ozone-friendly HFC
ARCTIC 22 MOBIL EAL ARCTIC 32 MOBIL EAL ARCTIC 46 MOBIL EAL ARCTIC 68 MOBIL EAL ARCTIC 100 MOBIL EAL ARCTIC 220	Fully syn refrigerau 32 Fully syn refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau	23 thetic, hig nts. Based tion and a 34 thetic, hig nts. Based thetic, hig nts. Based tion and a 65 thetic, hig nts. Based tion and a 98 thetic, hig nts. Based tion and a 220 thetic, hig nts. Based tion and a	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth- ir conditio 7,3 th perform d on synth- ir conditio 8,3 th perform d on synth- ir conditio 10,5 th perform d on synth- ir conditio 10,5 th perform d on synth- ir conditio 10,5	ance Envird esised poly ning system 115 ance Envird esised poly ning system 101 ance Envird esised poly ning system 92 ance Envird esised poly ning system 92 ance Envird esised poly ning system 90 ance Envird	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i ns in shop 0,975 onmental A ol esters (i ns in shop 0,966 onmental A ol esters (i ns in shop 0,966 onmental A ol esters (i ns in shop 0,960	Awarenes: POEs). N ping mal -48 Awarenes: POEs). N ping mal -36 Awarenes: POEs). N ping mal -30 Awarenes: POEs). N ping mal -30 Awarenes: POEs). N ping mal <-21 Awarenes: POEs). N	Is and hor Is and	ith HFC refrigerants. tels and low tempera int (EAL) for refrigerants. tels and low tempera ith HFC refrigerants. tels and low tempera	Suitable for household a ture transportation. tion compressors using Suitable for household a ture transportation.	and commercial ozone-friendly HFC
ARCTIC 22 MOBIL EAL ARCTIC 32 MOBIL EAL ARCTIC 46 MOBIL EAL ARCTIC 68 MOBIL EAL ARCTIC 100	Fully syn refrigerau 32 Fully syn refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau	23 thetic, hig nts. Based thetic, hig nts. Based	4,6 th perform d on synth- ir conditio 5,8 th perform d on synth- ir conditio 7,3 th perform d on synth- ir conditio 8,3 th perform d on synth- ir conditio 10,5 th perform d on synth- ir conditio 10,5 th perform d on synth- ir conditio 10,5	ance Envird esised poly ning system 115 ance Envird esised poly ning system 101 ance Envird esised poly ning system 92 ance Envird esised poly ning system 92 ance Envird esised poly ning system 90 ance Envird	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i ns in shop 0,975 onmental A ol esters (i ns in shop 0,966 onmental A ol esters (i ns in shop 0,966 onmental A ol esters (i ns in shop 0,960	Awarenes POEs). N ping mal -48 Awarenes POEs). N ping mal -36 Awarenes POEs). N ping mal -30 Awarenes POEs). N ping mal -30	Is and hor liscible will as Lubrica liscible will as Lubrica liscible will as Lubrica liscible will and hor 240 ss Lubrica liscible will and hor 250 ss Lubrica liscible will as Lubrica liscible will as Lubrica liscible will as Lubrica liscible will as Lubrica	ith HFC refrigerants. tels and low tempera int (EAL) for refrigerants. tels and low tempera ith HFC refrigerants. tels and low tempera	Suitable for household a ture transportation. tion compressors using Suitable for household a ture transportation.	and commercial ozone-friendly HFC
ARCTIC 22 MOBIL EAL ARCTIC 32 MOBIL EAL ARCTIC 46 MOBIL EAL ARCTIC 68 MOBIL EAL ARCTIC 100 MOBIL EAL ARCTIC 220	Fully syn refrigerau 32 Fully syn refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau refrigerau a220	23 thetic, hig nts. Based tion and a 34 thetic, hig nts. Based thetic, hig nts. Based thetic, hig nts. Based thetic, hig nts. Based tion and a 98 thetic, hig nts. Based tion and a 220 thetic, hig nts. Based tion and a 32	4,6 h perform d on synth- ir conditio 5,8 h perform d on synth- ir conditio 7,3 h perform d on synth- ir conditio 10,5 h perform d on synth- ir conditio 10,5 h perform d on synth- ir conditio 18,5	ance Envird esised poly ning system 115 ance Envird esised poly ning system 101 ance Envird esised poly ning system 92 ance Envird esised poly ning system 92 ance Envird esised poly ning system 90 ance Envird	onmental A ol esters (i ns in shop 0,985 onmental A ol esters (i ns in shop 0,975 onmental A ol esters (i ns in shop 0,976 onmental A ol esters (i ns in shop 0,966 onmental A ol esters (i ns in shop 0,960	Awarenes: POEs). N ping mal -48 Awarenes: POEs). N ping mal -42 Awarenes: POEs). N ping mal -36 Awarenes: POEs). N ping mal -30 Awarenes: POEs). N ping mal -30 Awarenes: POEs). N ping mal -30	Is Lubrica Is and hor Is and	ith HFC refrigerants. tels and low tempera int (EAL) for refrigerants. tels and low tempera ith HFC refrigerants. tels and low tempera	Suitable for household a ture transportation. tion compressors using Suitable for household a ture transportation.	and commercial ozone-friendly HFC and commercial

Brand name	ISO VG	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBIL	46	46	5,7		0,865	-36	172			
ZERICE S 46										
	-		, ,	efrigeration oon refrigera	,			<i>,</i>	ange of industrial recip	procating and rotary
				1		1	1	1	1	
MOBIL ZERICE S 68	68	64	6,5		0,870	-33	186			
			,	efrigeration				lkvl benzenes. For a ra	ange of industrial recip	procating and rotary
	Synthetic	c, premiun	n quality r	efrigeration	compress	sor oil. Ba	ased on a	<i>,</i>	ange of industrial recip	rocating and rotary
	Synthetic	c, premiun	n quality r	0	compress	sor oil. Ba	ased on a	<i>,</i>	ange of industrial recip	procating and rotary
ZERICE S 68	Synthetic compres	c, premiur sors with	n quality r fluorocark	0	compress ants such	sor oil. Ba as R502	ased on a and R12.	<i>,</i>	ange of industrial recip	procating and rotary



Compressor Oils

Brand name	ISO VG	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBIL RARUS SHC	32	32	5.6	127	0,846	-39	245			
1024				formance c cations. Lor			n of rotary	y screw and vane air	compressors. Reducea	deposit formation.
MOBIL RARUS SHC	46	46	7.2	131	0.849	-48	236			
1025				formance c cations. Lor			n of rotar	y screw and vane air	compressors. Reduced	deposit formation.
MOBIL RARUS SHC	68	67	10.4	144	0,854	-45	246			
1026				formance c cations. Lor			n of rotar	y screw and vane air	compressors. Reduced	deposit formation.
MOBIL RARUS 827	100	107	10,1	66	0,945	-36	270			
	Synthetic equipme		e perform	ance air co	mpressor	oil. For u	se for sev	vere duty reciprocatii	ng air compressors. Stat	tionary and mobile
MOBIL RARUS 829	150	150	13,2	77	0,976	-39	270			
	Synthetic equipme		e perform	ance air co	mpressor	oil. For u	se for sev	vere duty reciprocatii	ng air compressors. Stat	tionary and mobile
MOBIL RARUS 424	32	32	5,4	106	0,866	-33	236		DIN 51506 VD-L (approved RWTUEV)	
	1			ess air comp rotection. S		-			s. Suitable for reciproca	ting and rotary type
MOBIL RARUS 425	46	46	6,9	105	0,873	-30	238		DIN 51506 VD-L (approved RWTUEV)	
				ess air comp rotection. S					s. Suitable for reciproca	ting and rotary type
MOBIL RARUS 427	100	106	11,6	98	0,879	-21	264		DIN 51506 VD-L (approved RWTUEV)	
				ess air comp otection. S					s. Suitable for reciproca	ting and rotary type
MOBIL RARUS 429	150	147	14,7	99	0,886	-27	278		DIN 51506 VD-L (approved RWTUEV)	
				ss air comp otection. S					s. Suitable for reciproca	ting and rotary type



Brand name	ISO VG	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications		
		40°C	100°C		g/cm³	Ŷ	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring	
MOBIL	46	46	7.3	105	0.883	-24	188		Ingersoll Rand		
ALMO 525									(Rock drill oil light)		
									Ingersoll Rand		
									(Rock drill oil extra light)		
		1 2 .	0 ,	rmance lubr n percussive				cally operated rock dri	lls in underground and	surface mining	
MOBIL	100	113	11.4	91	0.899	-30	204		Ingersoll Rand		
ALMO 527									(Rock drill oil medium)		
									Ingersoll Rand		
									(Rock drill oil light)		
	Premium quality, high performance lubricant, suitable for pneumatically operated rock drills in underground and surface mining operations. Suitable for both percussive and rotary type tools.										

Brand name	ISO VG					Viscosity		Viscosity		Viscosity		Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring								
<b>MOBILECT 44</b>		7,6			0.877	-63	146		ANSI /ASTM D3487									
					(density				type II									
					at 20°C)				IEC 60296 -03 (I)									
	High quality mineral oil insulating oil with very good dielectric properties and oxidation stability for transformers, switch gears and																	
	other electrical equipment. Inhibited to improve oxidation resistance.																	

Brand name		SAE		c Viscosity	Viscosity	Density	Pour	Flash		Specifications	
		Grade	40°C	s or cSt 100°C	Index	at 15°C g/cm³	Point ℃	Point ℃	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications
MOBIL PEGASUS 1		15W-40	94	13,1	137	0,854	-48	238	MAN M 3271-1 MAN M 3271-2 Deutz MWM Waukesha Cogeneration VOLVO CNG FUELED BUS ENGINES MB 226.9		requiring Wartsila NSD W25SG
			-	-		nce gas e	engine oi	I. For mo	st demanding natu	rally aspirated and t	turbocharged
	stoichior			n gas engin	-			· · · · · ·	-	[	
MOBIL PEGASUS 1005		40	125	13,6	100	0,850	-15	247	Caterpillar GE Jenbacher Deutz Power Systems Wartsila MAK		
	highest l	evels of p	rotection.	Pegasus 10	005 deterg	ent-dispe	ersant sys	stem con		ssion four-cycle gas of carbon and varni	
MOBIL	S	40	132	13,2	97	0,886	-15	249	deu urain intervais.		
PEGASUS 801	TRN - 2	_	-	,		,	-		tural sweet das an	d other gases with I	low sulphur
	content.	,0.71077 - 1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	indiri porior	<i>inanoo, io</i>	ir don gad	o ongino		tarai, on oot gao ar	a othor gaooo marr	en capital
MOBIL PEGASUS 805	S	40	130	13,5	99	0,890	-12	262	Deutz MWM Wartsila		Jenbacher Caterpillar Waukesha
	TBN = 6	,2. Ash = (	0,5% Prer	nium perfoi	mance ga	s engine (	oil. For h	igh outpu	it 4-stroke engines.		
MOBIL PEGASUS 705		40	126	13,2	98	0,887	-15	252	Wartsila MTU MAN		Caterpillar Deutz Jenbacher
		,6. Ash = ( ation capa		gh quality ga	as engine (	oil for me	dium and	d high spo	eed gas engines ur	nder heavy duty ope	eration, with high
MOBIL PEGASUS	S	40	128	13,2	98	0,896	-15	249			Jenbacher Waukesha
710	TBN = 6	,5. Ash = 0	0,94% Hig	gh performa	nce gas ei	ngine oil 1	for mildly	aggressi	ive biogases.		
MOBIL PEGASUS 605	S	40	129	13,4	96	0,887	-18	255	MDE		Deutz Caterpillar Waukesha
						gine oil fo	or mediur	n and hig	h speed 4-stroke e	engines operating of	n corrosive fuel
MOBIL PEGASUS	such as	hydrogen 40	sulphide a	and haloger 13,6	98	0,889	-18	257	Jenbacher MAN		Wartsila Waukesha
610				gh performa and haloger		ngine oil 1	for mediı	ım and h		engines operating (	

Brand name	ISO VG	Kinen Visco mm²/s	osity	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications					
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring				
MOBILTHERM 32		30	5,4		0,857	-6	230							
	-	egular heat transfer fluid, based on solvent refined mineral base stocks. Good heat transfer efficiency. High flash point and good esistance to thermal cracking. For use in a broad range of applications												
MOBILTHERM 603		20	4,2		0,836	-3	210							
	0 /					0 ,		eral base stocks. Good d closed heating and d		cy. High flash point				
MOBILTHERM 605		30	5,4		0,857	-6	230							
	<u> </u>					0 ,		eral base stocks. Good d closed heating and d		cy. High flash point				
MOBILTHERM 611		490			0,906	-6	294							
	High performance heat transfer fluid, based on highly refined mineral base stocks. Good heat transfer efficiency. High flash point and good resistance to thermal cracking. For use in both open and closed heating and cooling systems.													



Brand name	Density at 15°C a/cm³	Appearance at 3% Dilution	pH at 3%	Mineral Oil Content										
	g/cm³			%	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring							
KUTWELL 42	0,896	Milky	8,9	75		GERMAN TRGS 611								
	Multi-purpose metal-working fluid with high oil content. Good emulsion stability in a wide variety of waters. Used for machining ferrous and non ferrous metals.													
MOBILCUT 122	0,900	Milky	9,5	70										
	, ,	e metal-working fluid wi on ferrous metals.	ith high oil c	ontent. Good	l emulsion stability in a	wide variety of waters. L	Jsed for machining							
MOBILCUT 141	0,950	Milky	9,1											
	Multi-purpose biostable metal-working fluid. Used for machining of aluminium, ferrous and yellow metals.													
MOBILCUT 231	0,977	Milky	9,4	40										
		e semi-synthetic metal- non ferrous metals.	working fluia	I. Good emu	lsion stability in a wide v	variety of waters. Used f	or machining of steels,							
MOBILCUT 321	1,120	Yellow	8,9	0										
	Fully synthetic, long life, mineral oil free grinding fluid. Provides good long-term corrosion protection for machine tools and components.													

## Cutting Fluids - Neat

Brand name	ISO VG	Kinen Visco mm²/s	osity	Viscosity Index	v Density at 15°C g/cm³	Pour Point	Flash Point		Specifications						
		40°C	100°C			°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring					
MOBILMET 426		36	6,2	130		-27	210								
		Multi purpose light/medium EP neat cutting oil. Suitable for a wide range of machining operations on all types of metals, including yellow metals. Can be used as a hydraulic fluid in non-critical systems.													
MOBILMET 446		32	6	132	0,882	-24	210								
		mended fo lisposal co		range of se	evere mach	nining ope	erations c	n all types of metals,	including yellow metal	ls. Chlorine free for					
MOBILMET 762		10	2,7	110	0,863	-42	168								
		Chlorine free oil with antimist additives for heavy duty cutting operations, including difficult to machine steels. Copper corrosive so cannot be used for machining copper based alloys.													
MOBILMET 763		19	4,2	128	0,874	-27	180								
	Chlorine free oil with antimist additives for heavy duty cutting operations, including difficult to machine steels. Copper corrosive so cannot be used for machining copper based alloys.														
VACMUL G13		13	3.1		0,862	-18	190								
	Chlorin	Chlorine free oil with antimist additives for demanding grinding operations. Suitable for grinding of gearwheels, axles and bearings.													
MOBIL VACMUL		1.61			0.791		83								
EDM2		Irpose diel nishing op		d for use in	all discha	rge mach	ines wor	king by penetration. E	specially for roughing,	finishing and					

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Brand name	ISO VG	Kinematic Viscosity mm <sup>2</sup> /s or cSt		Viscosity	at 15°Ć	Pour Point		Specifications							
		40°C	100°C		g/cm³		Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring						
MOBILARMA 524		88	10,5	95	0,882	-21	220								
	High pei engines.		e rust pre	eventive, SA	IE 30, reco	ommended	d for tempo	rary corrosion protec	tion of hydraulic syst	ems, gear boxes and					
MOBILARMA 798			23.1				238								
	Heavy d	uty rust p	breventati	ve for long	term corro	sion prote	ection in ou	tdoor applications. L	ubrication of wire rop	es.					
MOBILARMA MT		1,8			0,813		60								
		Solvent based corrosion preventive for medium and term protection. Thin film and high coverage capacity. Higher flash point and lower evaporation for enhanced operator safety.													
MOBIL RUST PREVENTATIVE		24.5		145	0.897	-48	190								
778			,	reventive fo anced opera			protection	of galvanized steel s	heets and coils. High	er flash point and					



Brand name	ISO VG	Visc	matic osity or cSt	Viscosity	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBIL SHC CIBUS 32	32 Promium	30	5,8	140	0,829	-54	253	Kosher Halal food processing m	DIN 51506 VDL DIN 51524 HLP ISO 11158 HM NSF H1 Registered	
	Fremun	r quaiity s	synthetic		eu iubiicai		ioi use iii	ioou processing m	lachinery	
MOBIL SHC CIBUS 46	46	43	7,7	148	0,833	-51	258	Kosher Halal	DIN 51506 VDL DIN 51524 HLP ISO 11158 HM NSF H1 Registered	
	Premiun	n quality :	synthetic	H1 register	ed lubrica	nt suitable	for use in	food processing m		
MOBIL SHC CIBUS 68	68	72	11,4	151	0,838	-48	267	Kosher Halal	DIN 51506 VDL DIN 51524 HLP ISO 11158 HM NSF H1 Registered	
	Premiun	n quality :	synthetic	H1 register	ed lubrica	nt suitable	for use in	food processing m	hachinery	
MOBIL SHC CIBUS 150	150	162	20,7	150	0,843	-21	226	Kosher Halal	DIN 51517 CLP NSF H1 Registered	
	Premium	n quality :	synthetic	H1 register	red lubrica	nt suitable	for use in	food processing m		
MOBIL SHC CIBUS 220	220	22	24,5	139	0,843	-24	274	Kosher Halal	DIN 51517 CLP NSF H1 Registered	
	Premium	n quality :	synthetic	H1 register	red lubrica	nt suitable	for use in	food processing m	hachinery	
MOBIL SHC CIBUS 320	320	311	32,7	147	0,854	-42	284	Kosher Halal	DIN 51517 CLP NSF H1 Registered	
	Premium	n quality :	synthetic	H1 register	red lubrica	nt suitable	for use in	food processing m	hachinery	
MOBIL SHC CIBUS 460	460	458	43,6	148	0,856	-42	294	Kosher Halal	DIN 51517 CLP NSF H1 Registered	
	Premium	n quality :	synthetic	H1 register	red lubrica	nt suitable	for use in	food processing m	hachinery	
MOBIL DTE FM 32	32	32	5,5		0,862	-12	212		FDA 21 CFR 178.3570 NSF H1 Registered	
		t oxidatic							s and odourless. Good as for compressor and v	
MOBIL DTE FM 46	46	46	6,8		0,868	-9	226		FDA 21 CFR 178.3570 NSF H1 Registered	
								ndustries. Tasteles draulic and compr	s and odourless. Good ressor oil.	wear protection,
MOBIL DTE FM 68	68	69	8,7		0,873	-12	228		FDA 21 CFR 178.3570 NSF H1 Registered	
H								ndustries. Tasteles raulic and compres	s and odourless. Good	wear protection,



Brand name	ISO VG	Viscosity Index	NLGI Grade	Thickener Type	Dropping Point	Specifications				
		muck	Grade	Type	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring		
MOBILGREASE FM 101	100		1	Aluminium Complex		Kosher Halal	NSF H1 registered DIN KPF1K-20			
	Multipurpos	e grease for t	the food and	beverage ind	ustry. Central	lized grease distributio	on systems.			
MOBILGREASE FM 222	220		2	Aluminium Complex		Kosher Halal	NSF H1 registered DIN KPF2K-20			
	Multipurpose grease for the food and beverage industry.									

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## Paper Machine Circulation Oils

Brand name	ISO VG	Visc	matic cosity s or cSt	Viscosity	Density at 15°C	Point	Flash Point		Specifications					
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring				
MOBIL SHC PM 150	150	158	18,9	131	0,857	-39	220							
								tion systems of high o for long periods of o		es and of calendar				
MOBIL SHC PM 220	220	225	25,6	133	0,863	-36	220							
								tion systems of high of for long periods of o		es and of calendar				
MOBIL SHC PM 320	320	325	34,7	135	0,865	-33	220							
	-						-	tion systems of high of for long periods of o		es and of calendar				
MOBIL PAPER MACHINE OIL	220	220	27	153	0.88	-48	214							
S 220	High performance synthetic lubricant specifically designed for demanding industrial paper machine circulation systems were oil darkening is a problem. Designed to provide excellent protection of gears and bearings operating under severe conditions.													
MOBIL DTE PM 150	150	150	14,7	95	0,884	-6	240							
	High quality, high performance lubricant for demanding industrial paper machine circulation systems. Excellent separation from water. Good anti-wear performance.													
MOBIL DTE PM 220	220	220	19	95	0,888	-6	250	SKF Paper Machine Oils for Drier Section (OHF-T-3) FAG Paper Machine for Drier Section						
				ance lubrica formance.	ant for der	nanding ir	idustrial pa	per machine circulati	on systems. Excellen	t separation from				

Brand name	ISO VG	Viscosity Index	NLGI Grade	Thickener Type	Dropping Point	Specifications					
					°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring			
MOBILITH SHC	220		1,5	Lithium	246 min		DIN 51825:				
PM 220				Complex			KPHC1-2N-40				
	and exceller conditions.	nt oxidation	stability of t	he synthetic	base stock	ensures excellent servi	ce at high temperatures	s typical of dry end			
MOBILITH SHC	460		1,5	Lithium	246 min		DIN 51825:				
PM 460				Complex			KPHC1-2N-40				
	Designed for use in the most critical rolling element bearing applications in paper machines. Provides outstanding protection										
	against rust and typical acid and alkali water corrosion, making it ideal for the wet end of the paper machine. The low volatility										
	and excellent oxidation stability of the synthetic base stock ensures excellent service at high temperatures typical of dry end conditions.										



Brand name	ISO VG	Viscosity Index	NLGI Grade	Thickener Type	Dropping Point		Specifications						
					°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring					
MOBILGEAR OGL 007	460		00	Lithium	180 min								
	and slow op	ligh performance semi fluid lubricant that contain EP additives and finely dispersed graphite. Designed for fast, medium Ind slow open gears in mining, agriculture and cement. Suitable for bath or spray application.											
MOBILGEAR OGL 009	1500		00	Lithium	180 min								
	0,	High performance semi fluid lubricant that contain EP additives and finely dispersed graphite. Designed for fast, medium and slow open gears in mining, agriculture and cement. Suitable for bath or spray application.											
MOBILGEAR OGL 461	460		1,5	Lithium	180 min								
	High performance semi fluid lubricant that contain EP additives and finely dispersed graphite. Designed for fast, medium and slow open gears in mining, agriculture and cement. Suitable for bath or spray application.												



Brand name	ISO VG	Viscosity Index	NLGI Grade	Thickener Type	Dropping Point		Specifications					
					°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring				
MOBIL SHC POLYREX 462	460		2	Polyurea	250 min	Kosher & Parve	DIN KPF2P-20	NSF H1 registered				
	problems in	both genera	l industry a	nd food proce	essing applic		solving high temperat mbination of high ten					
MOBIL SHC POLYREX 222	220		2	Polyurea	260 min	Kosher & Parve	DIN KPF2P-30	NSF H1 registered				
	problems in	both genera	l industry a	nd food proce	essing applic	ations. It offers a cor	olving high temperate mbination of high ten					
MOBIL SHC POLYREX 005	220		00	Polyurea		nance properties. Kosher & Parve	DIN GPF00K-30	NSF H1 registered				
	problems in	both genera	l industry a	nd food proce	essing applic		solving high temperat mbination of high ten					
MOBILITH SHC 007	460		00	Lithium Complex	N/A		DIN 51826: GPHC00K-30					
	Supreme performance fully synthetic grease designed for a wide variety of applications at extremes of temperature and operating conditions. Excellent adhesion, structural stability and resistance to water. Used in industrial, automotive and marine applications.											
MOBILITH SHC 100	100		1,5	Lithium Complex	246 min		DIN 51825: KPHC2N-40					
		onditions. Ex					tions at extremes of er. Used in industrial,					
MOBILITH SHC 220	220		1,5	Lithium Complex	246 min		DIN 51825: KPHC2N-40					
	Supreme performance fully synthetic grease designed for a wide variety of applications at extremes of temperature and operating conditions. Excellent adhesion, structural stability and resistance to water. Used in industrial, automotive and marine applications.											
MOBILITH SHC 460	460		1,5	Lithium Complex	246 min		DIN 51825: KPHC1-2N-40					
	Supreme performance fully synthetic grease designed for a wide variety of applications at extremes of temperature and operating conditions. Excellent adhesion, structural stability and resistance to water. Used in industrial, automotive and marine applications.											
MOBILITH SHC 1000 SPECIAL	1000		2	Lithium Complex	246 min		DIN 51825 KPFHC2N-30					
	operating co	onditions. Ex	cellent adhe	esion, structur	al stability a	nd resistance to wate	tions at extremes of er. Used in industrial,					
MOBILITH SHC 1500	NLGI 1	ications. Cor	1,5	odeneum disu Lithium Complex	246 min	raphite.	DIN 51825: KPHC1-2N-30					
	operating co	onditions. Ex					tions at extremes of er. Used in industrial,					
MOBILTEMP SHC 100	marine appl 100	ications.	2	Clay	260 min							
		nt structural	-	÷ .			ance to thermal/oxida d relubrication period	-				
MOBILTEMP SHC 460 SPECIAL	460		1	Clay	260 min							
	with excelle	nt structural	stability at h		ure. Long se		tance to thermal/oxio d relubrication period					
MOBIL POLYREX EM	Savings pole	95 min	2	Polyurea	250 min							
						d for electric motor l to for low noise sens	bearings and sealed- itive environments.	for-life bearings.				
MOBIL POLYREX EM		95 min	3	Polyurea	250 min							
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Brand name	ISO VG	Viscosity Index	NLGI Grade	Thickener Type	Dropping Point		Specifications	
					°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use applications requirir
MOBILGREASE XHP 222	220		1,5	Lithium Complex	246 min			
						notive, construction a mination, high loads		ons. Used for sever
10BILGREASE XHP 322 SPECIAL	320		2	Lithium Complex	280			
						notive, construction a mination. Contains N		
MOBILGREASE XHP 461	460		1	Lithium Complex	260 min			
						notive, construction a mination, high loads		ons. Used for sever
UNIREX N 2		95 min	2	Lithium Complex	205 min		K2N-20L	
						high temperature serve but most particularly		
UNIREX N 3	bearings.	95 min	3	Lithium Complex	205 min		K3N-20L	
						high temperature sen but most particularly		
UNIREX EP 2	220		2	Lithium Complex	260 min			
	there may b		amination a	nd/or heavy o		grease. Excellent mu e. Suitable for plain a		
MOBILTEMP 1	460		1	Clay	260 min			
						 anti-friction bearings ( on and water washou		
MOBILTEMP 78	460		1	Clay	260 min			
	temperature		ity and exce			anti-friction bearings ( on and water washou		
MOBILUX EP 004	150	nybaenum a	00	Lithium	N/A	SEW under approval phase		
	protection a	gainst wear,	rusting and	water washo	ut. Suitable	n mineral oils and a l for equipment where ding heavy-duty.		
MOBILUX EP 0	150		0	Lithium	180 min	ing neavy-duty.		
						 n mineral oils and a l for equipment where		
MOBILUX EP 1	Recommend 150	ded for most	types of inc	<u>dustrial applic</u> Lithium	ations inclue 180 min	ling heavy-duty.		
	protection a	gainst wear,	rusting and	water washo	ut. Suitable	n mineral oils and a l for equipment where		
MOBILUX EP 2	150	uea for most	types of inc	Lithium	180 min	ding heavy-duty.		
						n mineral oils and a l for equipment where		
MODILLING	Recomment		types of ind	dustrial applic	ations includ	ding heavy-duty.		
MOBILUX EP 3	150		3	Lithium	180 min			

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Brand name	ISO VG	Viscosity Index	NLGI Grade	Thickener Type	Dropping Point		Specifications				
		index		1900	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring			
MOBIL SHC GREASE 460 WT	460		1,5	Lithium Complex	246 min		DIN 51825: KPHC1-2N-40				
		temperature	,			e demanding requirer w, pitch and main bea					
MOBIL CENTAUR XHP 221	220		1	Calcium Sulfonate	318						
	High perforr	nance greas	e for lubricat	ion of rolling	element bea	arings in high tempera	atures and water satu	irated environments			
MOBIL CENTAUR XHP 461	460		1	Calcium Sulfonate	275						
	High perforr	mance greas	e for heavily	loaded and w	water saturat	ted applications in ste	eel and paper mill ap <sub>l</sub>	olications.			
MOBILGREASE XTC	680		1	Lythium Polymer	215		AGMA CG-1 AGMA CG-2				
	High perforr	nance greas	e for lubricat	ion of high s	peed flexible	couplings and joints					
MOBILGREASE SPECIAL	150		2	Lithium	180 min						
	Extreme pressure lithium thickened grease. Contains molybdenum disulphide to give extra protection in heavily bearings. Wheel bearings and chassis components in automotive and industrial equipment, passenger cars, tru tractors, construction and mobile equipment.										
MOBIL CHASSIS	tractors, cor	istruction an	r /		160	MB 264	DIN51826: GP00G-50				
GREASE LBZ			00	Lithium/ Calcium		MAN 283 Li-P 00/ 000					
	U U	Semi-fluid grease, designed for the central lubrication systems of commercial vehicles. Excellent flow properties at low temperatures in long pipelines. MB pg 264. Willy Vogel.									

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Brand name	ISO VG	Visc	matic osity or cSt	Viscosity	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C	maax	g/cm <sup>3</sup>	<sup>3</sup> °C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBILSOL PM		383	21	56	0,885		208			
	1		0 2	0	,	-		ch, when added to the on gummy oil oxidation		
MOBIL		180	20.4	132	0.930	-46	270			
PYROLUBE 830										
	Fully syn	thetic ch	ain oil for	<sup>-</sup> lubrication	of heavilv	loaded cl	hains, Espe	cially suitable for hot	applications in ovens	and kilns

# Marine Lubricants

Marine Engine Oils	44
Marine Engine Oils (zinc-free)	45
Marine Cylinder Oils	46
Mobil Stern Tube Lubricant	47



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Marine Engine Oils

Brand name	SAE Grade	Viso	matic cosity s or cSt	Viscosity Index	Density at 15°C	Pour Point	TBN		Specifications	
		40°C	100°C		g/cm³	°C		Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use i applications requiring
MOBILGARD 312	30	108	12	100	0,896	-9	15			API CF
MOBILGARD 412	fuels in r	marine a	nd industr	rial applicat	tions. It is f	ormulated	to have ex	xcellent resistance to	engines operating on o oxidation and viscosi corrosion protection.	
	fuels in i	marine a	nd industr	rial applicat	tions. It is f	ormulated	to have ex	xcellent resistance to	engines operating on a oxidation and viscosi	
MOBILGARD ADL 30	<u>long per</u> 30	10 <u>0 of se</u> 108	12	as superior 100	0,9	arating pr -12	<u>operties ar</u> 15	nd provide excellent	corrosion protection.	API CF
	and high 30 and 4 propertie assist in lacquerii	n-speed 10 grade es these sludge a ng, impro	diesel eng s to suit n oils provie and depos	ines opera nost marine de not only sit removal. all engine c	ting on dis e engine vis increased Use of Mo leanliness	tillate and scosity rec resistance bbilgard Ai and can ir	MDO fuels quirements to cylinde DL Series ocrease tim	s. These advanced d . As a result of a spe er liner lacquer forma oils avoids high oil co ne between engine o	ncy engine oils for hig iesel lubricants are ava- icial balance of deterg ation in severe service consumption associated verhauls. Superior loa- able for marine gearing	ailable in both SAE ent and dispersant applications, but a d with cylinder liner d carrying propertie
MOBILGARD ADL 40	40	141	14,5	101	0,901	-9	15			API CF
	and high 30 and 4 propertie assist in lacquerii	n-speed 40 grade es these sludge a ng, impro	diesel eng s to suit n oils provie and depos	nines opera nost marine de not only sit removal. all engine c	ting on dis e engine vis increased Use of Mo leanliness	tillate and scosity rec resistance bbilgard Al and can ir	MDO fuels quirements to cylinde DL Series o ncrease tim	s. These advanced d . As a result of a spe er liner lacquer forma oils avoids high oil co ne between engine o	ncy engine oils for hig iesel lubricants are ava- cial balance of deterg ation in severe service consumption associated verhauls. Superior loa- able for marine gearing	ailable in both SAE ent and dispersant applications, but a d with cylinder liner d carrying propertie
MOBILGARD M330	30	112	12		0,907	-6	30		API CF	g applications.
	severe re oils have cleanline	esidual-fi e been sp ess, espe	ueled, me pecially fo cially in c	dium-spee rmulated to rankcase, o	d diesel en o provide o camshaft al	ngines use outstanding reas, ring	d in marine g residual f belt and pi	e and stationary pow fuel compatibility cha iston undercrowns. 7	ngine oils designed fo er applications. These aracteristics to deliver They provide excellent	e diesel engine excellent engine
MOBILGARD M430	40	143	14	<u>pility, Iow vo</u>	0,907	<u>n Ioad-cai</u> -6	30	perties and corrosion	API CF	
	severe re oils have cleanline oxidation	esidual-f e been sp ess, espe n and the	ueled, me pecially fo ecially in c ermal stab	dium-spee rmulated to rankcase, o vility, low vo	d diesel en o provide o camshaft al olatility, hig	ngines use outstanding reas, ring h load-cai	d in marine g residual 1 belt and pi rying prop	e and stationary pow fuel compatibility cha iston undercrowns. 7	ngine oils designed fo er applications. These rracteristics to deliver They provide excellent protection. Mobilgard	e diesel engine excellent engine high temperature
MOBILGARD M440	40	143	14		0,915	-6	40		API CF	
	in the lat or opera in neutra	test mod ting with alising th	lel mediur low cylin e strong a	n speed die der liner te	esel engine mperatures ing from th	es and are s. Relative e use of h	especially ly high alka	beneficial in engines alinity reserves in the	y fuel. They are recon s having low crankcase use oils provide superio uss to the crankcase to	e oil consumption or protection
MOBILGARD M50	40	142	14		0,922	-6	50		API CF	
	operatin	g on higi	h sulphur		recomment	ded for us	e in main p	propulsion and auxilia	designed with "flame- ary engines on deep-s	
MOBILGARD 300	30	111	12	97	0,889	-12	5			
	those en thus mai prevent allows fo excellen	ngines en intaining or reduc or the bu t system	nploying t piston co e crankca rning of h oil in olde	he system oling efficie se deposits igh sulphui	oil for pisto ency and re s and will p fuel. Good rosshead o	on cooling educing th provide ou d rust prev	. It will pre le incidenc tstanding p vention and	event or reduce depo te of piston top burn protection for heavily d water separation cl	t, crosshead diesel en sit formation in the pis ing and piston crown loaded bearings. Its r haracteristics make Mo pistons and where crai	ston cooling spaces cracking. It will also reserve alkalinity obilgard 300 an

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Brand name	SAE Grade	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	TBN		Specifications										
		40°C	100°C		g/cm <sup>3</sup>	°C		Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring									
MOBILGARD 1	40	109	14,5	136	0,872	-54	15	MTU TYPE 2	API CF, CF-2	API CF / CF-2									
SHC									MTU Type II (extended										
									drain up to 1500 hours										
									in fast ferries)										
									FZG Stage 12										
	are seve	re, as we	ell as for a		involving i	low-tempe		0	ermal stress and load , rapid loading followi	0									
MOBILGARD	40	139	14,1	98	0,897	-6	13			API CF / CF-2 EMD,									
450NC										EMD DD6V92 TA test,									
										LMOA Generation 4									
										lubricant.									
	Mobilgai	rd 450 No	C (No Chl	lorine) engii	ne oil has l	been spec	ifically form	nulated to meet requi	rements of heavily loa	aded diesel engines									
	manufac	tured by	EMD and	l used in m	arine appli	cations. I	t is suitable	e for other marine die	sel engines of the hig	hest horsepower,									
	or highe	r brake m	nean effec	tive pressu	ire (BMEP)	using dis	tillate fuels	with a sulfur content	up to 1.5 percent. It	will lubricate such									
	engines	in drilling	rias and	stationarv	power aen	eration se	rvice as we	r higher brake mean effective pressure (BMEP) using distillate fuels with a sulfur content up to 1.5 percent. It will lubricate such											
		engines in drilling rigs and stationary power generation service as well. Mobilgard 450 NC has been approved by EMD and is recommended for diesel engines manufactured by Alco, Detroit Diesel (API CF-2) and Fairbanks Morse.																	

Brand name	SAE Grade	Visc	matic osity or cSt	Viscosity	Density at 15°C	Pour Point	TBN		Specifications			
		40°C	100°C		g/cm³	°C		Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring		
MOBILGARD	50	229	21	104	0,937	-9	70					
570												
	Mobilgard 570 has been developed for marine crosshead engines designed for increased power and fuel efficiency. Such engines exhibit higher temperatures and pressures in the cylinder, which reduce the lubricant''s viscosity and increase the loads which it must withstand. Longer piston strokes have greatly increased the amount of surface to be protected and the amount of time the lubricant must withstand the severe cylinder temperatures and corrosive sulphur acids.											
MOBILGARD L540	50	236	21	105	0,917	-6	40					
	Mobilgard L540 has been developed for marine crosshead engines with increased power and fuel efficiency. Such engines exhibit higher temperatures and pressures in the cylinder, which reduce the lubricant's viscosity and increase the loads which it must withstand. Longer piston strokes have greatly increased the amount of surface to be protected and the amount of time the lubricant must withstand the severe cylinder temperatures and corrosive sulphur acids. Mobilgard L540 has also demonstrated superior performance in earlier engine designs.											



#### Mobil Stern Tube Lubricant

Brand name	SAE Grade	Kinematic Viscosity mm²/s or cSt		Viscosity		Viscosity	Density at 15°C	Pour Point	TBN		
		40°C	100°C		g/cm³	°C		Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring	
MOBIL		385	24	82	0,915	10					
STERN TUBE											
LUBRICANT	Mobil Stern Tube Lubricant is a high-performance, high viscosity lubricant developed especially for the lubrication of Cedervall- type stern tube bearings used in ships and for certain bearings of ships'' fin stabilizers. Mobil Stern Tube Lubricant is formulated from relatively high Viscosity Index (VI) base oils combined with emulsifiers, structure modifiers, surface active agents and corrosion preventives. It emulsifies readily with seawater to form a stable water-in-oil emulsion that is adhesive and an excellent lubricant. It provides effective rust protection in the presence of seawater and the lubricating film is resistant to water washing so that corrosion protection is maintained for extended periods under severe operating conditions.										

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## Aviation Lubricants

Jet Engine Oil	50
Hydraulic Oil	51
Aviation Grease	52





Brand name	ISO VG	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point		Specifications	
		40°C	100°C			°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring
MOBIL		27,6	5,1		1,00355	-59	270	MIL-PRF-23699F-STD		
JET OIL II										
	Mobil Je	et Oil II is	a high pe	erformance	aircraft-typ	be gas tur	bine lubrica	ant formulated with a	combination of a hig	hly stable synthetic
	base flui	d and a i	unique ch	emical add	litive packa	ge. The c	ombinatior	n provides outstanding	g thermal and oxidati	ve stability to resist
	deteriora	ation and	deposit f	ormation in	n both the l	iquid and	vapour ph	ases, as well as excel	llent resistance to foa	iming.
MOBIL JET OIL 254		26,4	5,3		1,0044	-62	254	MIL-PRF-23699F-HTS		
				0	. 0	,		hetic aircraft-type gas cial and military aircraf		gineered to meet the
MOBIL		16,2	3,7		0,852	-60	234	IPM-10,VNIINP 50-1-4f		
TURBO 319-A2								and -4u,		
								36/1 Ku-A, MS-8P,		
								MS-8RK		
	engines based lu	which op bricants.	perate on The abili	mineral-oil ty of Mobil	-based lubi	ricants. Th A-2 to res	he product	the performance requ has superior thermal ration and deposit for	and oxidation stabilit	ty than mineral-oil-

Brand name	ISO VG	Visc	matic osity or cSt	Viscosity Index	Density at 15°C	Pour Point	Flash Point	Specifications									
		40°C	100°C		g/cm³	°C	°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring							
HYJET		37.8 (at	3.57 (at	320	1,001	-62	174	SAE AS1241C, NSA									
IVA-PLUS		37.8 C)	98.9 C)					307110M,									
								C-34-1224C,									
								1159SCH302D,									
								BMS 3-11M, DMS									
								2014G, BAC.M.333C,									
								BAMS 564-003									
	Exxon H	xxon HyJet IV-Aplus is a superior quality, fire-resistant phosphate ester hydraulic fluid designed for use in commercial aircraft.															
	This pro	nis product is an advanced Type IV fluid and offers many of the performance capabilities of Type V fluids, including high															
	tempera	ture stab	ility, low d	density, an	d rust prote	ection.											
MOBIL AERO		13.9	5.1	370	0,882	-66	108 (COC	MIL-H-5606A									
HFA							method)										
	Mobil A	Nobil Aero HFA, HF, and HFS are formulated for aircraft systems where use of hydrocarbon-based hydraulic fluids is required.															
		hey are low viscosity products, high VI fluid with excellent low temperature properties, good anti-wear performance, and good															
	-	al stability	5 1														
MOBIL AERO		13.8	5.1	370	0,881	-66	90	MIL-PRF-5606H,									
HF					ŕ		(PMCC	NATO Code H-515									
							method)										
	Mobil A	ero HFA.	HF, and I	HFS are fo	rmulated fo	r aircraft s		ere use of hydrocarb	on-based hydraulic fi	uids is required.							
							2	· · · · · · · · · · · · · · · · · · ·	ood anti-wear perfori	'							
	chemica		5 1	acces, mgn					ood and nodi ponon								



ISO VG	Visc	osity	NLGI Grade	Thickener Type	Dropping Point	Specifications									
	40°C	100°C			°C	Approved	Meets or exceeds requirements of	Recommended by ExxonMobil for use in applications requiring							
	29,3	9,2	1-2	Lithium	315	MIL-PRF-81322G,									
				Complex		NATO G-395,									
						JSD XG-293, DOD-G-									
						24508A Am 4									
	). ).			, U											
oounige		14.5	2	Lithium	278	All Major Aircraft Wheel									
				Complex		Builder Approvals									
polyalph	aolefin (F	PAO) synti	hetic base	fluid with t	hose of a hi	gh quality lithium com	, plex soap thickener. The								
	12,5	3.2	1-2	Lithium	205	<u> </u>	BMS 3-33B,								
	ŕ	ŕ		Complex			MIL-PRF-23827C, Am 1,								
							Type I								
High performance synthetic multipurpose grease; all applications for which the aircraft manufacturer specifies MIL-PRF-238 and/or BMS 3-33 greases. This grease's unique polyalphaolefin (PAO) synthetic base oil is not susceptible to the effects of hydrolysis that can occur with greases formulated with ester base oils. Mobilgrease 33 PAO base oil, lithium complex thickener, and robust additive system provides outstanding low temperature and wear performance.															
	a polyalp pumpab bearings Mobil Av polyalph provides High per and/or E of hydro	ISO VG Visc mm²/s 40°C 29,3 Mobilgrease 28 is a polyalphaolefin pumpability, very bearings. 100 Mobil Aviation Gi polyalphaolefin (f provides a high of 12,5 High performanc and/or BMS 3-33 of hydrolysis that	mm²/s or cSt         40°C       100°C         29,3       9,2         Mobilgrease 28 is a suprer         a polyalphaolefin (PAO) syn         pumpability, very low start         bearings.         100       14,5         Mobil Aviation Grease SH0         polyalphaolefin (PAO) synt         provides a high dropping p         12,5       3,2         High performance synthetiand/or BMS 3-33 greases.         of hydrolysis that can occu	ISO VG         Viscosity mm²/s or cSt         NLGI Grade           40°C         100°C         Grade           29,3         9,2         1-2           Mobilgrease 28 is a supreme perform a polyalphaolefin (PAO) synthetic bass pumpability, very low starting and run bearings.         100         14,5         2           Mobil Aviation Grease SHC 100 is a polyalphaolefin (PAO) synthetic base provides a high dropping point, exce 12,5         3,2         1-2           High performance synthetic multipur and/or BMS 3-33 greases. This great         100         12,5         12,5	ISO VG         Viscosity mm²/s or cSt         NLGI Grade         Thickener Type           40°C         100°C         Thickener Grade         Thickener Type           29,3         9,2         1-2         Lithium Complex           Mobilgrease 28 is a supreme performance, wide a polyalphaolefin (PAO) synthetic base fluid with pumpability, very low starting and running torqu bearings.         Lithium Complex           100         14,5         2         Lithium Complex           Mobil Aviation Grease SHC 100 is a supreme per polyalphaolefin (PAO) synthetic base fluid with t provides a high dropping point, excellent resistat 12,5         3,2         1-2         Lithium Complex           High performance synthetic multipurpose grease and/or BMS 3-33 greases. This grease''s unique         Source of the set of	ISO VG         Viscosity mm²/s or cSt         NLGI Grade         Thickener Type         Dropping Point °C           40°C         100°C         110°C         110°C<	ISO VG       Viscosity mm²/s or cSt       NLGI Grade       Thickener Type       Dropping Point °C       Dropping Point °C         40°C       100°C       100°C       11-2       Lithium Complex       315       MIL-PRF-81322G, NATO G-395, JSD XG-293, DOD-G- 24508A Am 4         Mobilgrease 28 is a supreme performance, wide-temperature, antiwear grease de a polyalphaolefin (PAO) synthetic base fluid with an organo-clay (non-soap) thicke pumpability, very low starting and running torque, and can reduce operating temp bearings.         100       14,5       2       Lithium Complex       278       All Major Aircraft Wheel Builder Approvals         Mobil Aviation Grease SHC 100 is a supreme performance synthetic grease which polyalphaolefin (PAO) synthetic base fluid with those of a high quality lithium comp provides a high dropping point, excellent resistance to water wash, and a tenacion provides a high dropping point, excellent resistance to water wash, and a tenacion provides a high dropping point, excellent resistance to water wash, and a tenacion provides a high dropping point, excellent resistance to water wash, and a tenacion provides a high dropping point, excellent resistance to water wash, and a tenacion provides a high dropping point, excellent resistance to water wash, and a tenacion provides a high dropping point, excellent resistance to water wash, and a tenacion provides a high dropping point.       205         High performance synthetic multipurpose grease; all applications for which the air and/or BMS 3-33 greases. This grease''s unique polyalphaolefin (PAO) synthetic base	ISO VG         Viscosity mm²/s or cSt         NLGI Grade         Thickener Type         Dropping Point °C         Dropping Point °C         Approved         Meets or exceeds requirements of           40°C         100°C         100°C         Lithium Complex         315         MIL-PRF-81322G, NATO G-395, JSD XG-293, DOD-G- 24508A Am 4           Mobilgrease 28 is a supreme performance, wide-temperature, antiwear grease designed to combine the u a polyalphaolefin (PAO) synthetic base fluid with an organo-clay (non-soap) thickener. It provides excellen pumpability, very low starting and running torque, and can reduce operating temperatures in the load zon bearings.           100         14,5         2         Lithium Complex         278         All Major Aircraft Wheel Builder Approvals           Mobil Aviation Grease SHC 100 is a supreme performance synthetic grease which combines the unique for polyalphaolefin (PAO) synthetic base fluid with those of a high quality lithium complex soap thickener. The provides a high dropping point, excellent resistance to water wash, and a tenacious structural stability.           12,5         3,2         1-2         Lithium Complex         205         BMS 3-338, MIL-PRF-23827C, Am 1, Type I           High performance synthetic multipurpose grease; all applications for which the aircraft manufacturer spect and/or BMS 3-33 greases. This grease''s unique polyalphaolefin (PAO) synthetic base oil is not susceptible							

### **Useful Information**

ISO Viscosity Classification System 54



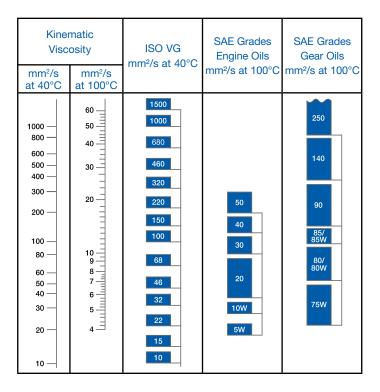


#### ISO Viscosity Classification System

The ISO Viscosity Grades are an International System approved by the International Standards Organisation for classifying lubricants according to viscosity. Each ISO Viscosity Grade corresponds to a mid-point of a viscosity range expressed in centiStrokes (cSt or mm<sup>2</sup>/s) at 40°C.

ISO Viscosity Grade	Viscosity Ranges at 40°C	Mid Point
ISO VG 2	1,98-2,42	2,2
ISO VG 3	2,88-3,52	3,2
ISO VG 5	4,14-5,06	4,6
ISO VG 7	9,00-11,00	6,8
ISO VG 10	16,5-16,5	10
ISO VG 15	19,8-2,42	15
ISO VG 22	28,8-35,2	22
ISO VG 32	41,4-50,6	32
ISO VG 46	61,2-74,8	46
ISO VG 68	90,0-110	68
ISO VG 100	135-165	100
ISO VG 150	198-242	150
ISO VG 220	288-352	220
ISO VG 320	414-506	320
ISO VG 460	414-506	460
ISO VG 680	612-748	680
ISO VG 1000	900-1000	1000
ISO VG 1500	1350-1650	1500

### Viscosity Classification Equivalents



### Grease Consistency (NLGI)

Grade NLGI	Penetration 0,1 mm 25°C (after 60-stroke worked)
000	445-475
00	400-300
0	355-385
1	310-340
2	265-295
3	220-250



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