





COMPANY PRESENTATION CASTED, DRILLED, FILLED: THE MOTUL GROUP EXPERTISE PART1 PROCESS LUBRICANTS O1 METAL WORKING NEAT MACHINING OILS SPECIALTIES GRINDING & SUPERFINISHING MINIMUM QUANTITY LUBRICATION SOLUBLE MACHINING FLUIDS O2 METAL & SURFACE TREATMENT FORMING WIRE DRAWING HEAT TREATMENT CLEANERS RUST PREVENTATIVES PART2 MAINTENANCE LUBRICANTS O3 GENERAL LUBRICATION - MAINTENANCE FLUIDS HYDRAULIC FLUIDS MULTIFUNCTIONAL OILS GEAR OILS SLIDEWAY OILS	4
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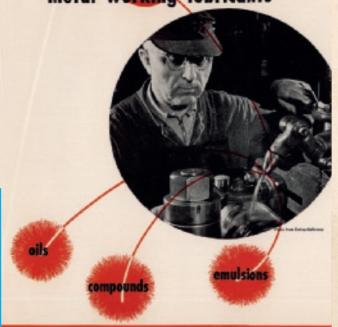
MOTULTECH THE INDUSTRAL LUBRICANTS DAY SON OF THE MOTULES 2007

MotulTech is a division of the Motul Group, a family owned international company manufacturing high performance lubricants for more than 160 years. MotulTech develops, blends and sells top tier industrial lubricants for metal working and machinery lubrication. MotulTech is present in many countries in the world through its products and services, as well as its manufacturing sites and R&D laboratories.



INDUSTRIAL AND
AUTOMOTIVE
SECTORS ARE KNOWN
FOR THEIR DYNAMISM
AND CONTINUING
EVOLUTION.
PURSUING
PERFECTION IMPLIES
MASTERING EVERY
SINGLE PROCESS THAT
A COMPANY WILL
HAVE TO FACE.





SWAN-FINCH OIL CORPORATION





MOTUL est aussi livrée en :

Bidons de 2/4 de gallon (2 litres env.)

a de 2 a (7 litres 1/2)

Seaux de 5 a (19 litres)

Tonnelets d'origine de 58 litres

a a l16 a

Grands fûts d'origine de 210 litres

Approvisionnez - vous directement à la Source de production par ces emballages d'origine!





Utilisez pour le maintien de votre matériel les incomparables graisses

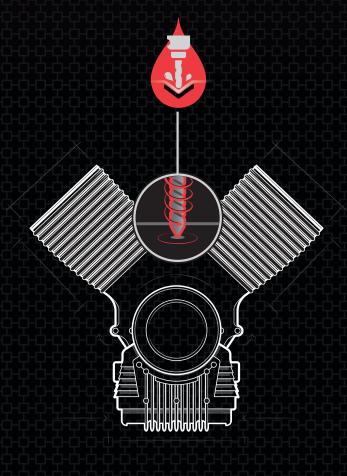
MOTUL



MOTUL GROUP EXPER







CASTED

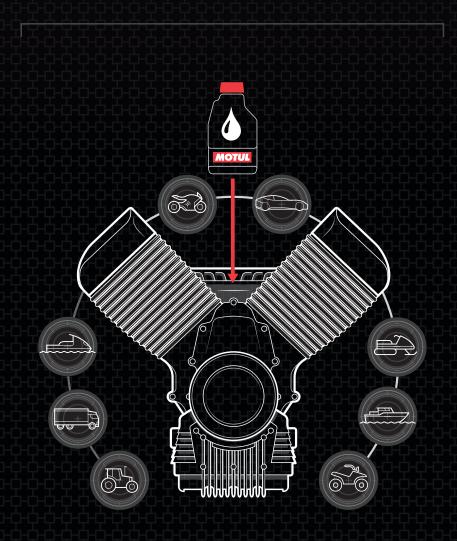
FROM MELTED METAL TO DIE **CASTED METAL BODIES**

DRILLED

TRANSFORMING RAW METAL INTO FINISHED PARTS

TISE

MOTUL







PART 1

PROCESS LUBRICANTS



METAL WORKING





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Each machining application is unique, each of our clients has specific needs.

The MotulTech offer to its customers encompasses a wide range of neat & soluble machining fluids; this range is the result of a long collaboration process with specialists in machining. By listening to your needs, our experts develop products that reconcile the search for performance and productivity with respect for users and the environment. Conceived to optimize the performance/consumption ratio, these products make it possible to obtain high quality parts at the highest production rates and optimised cost. The ethos behind formulation is to meet the most stringent requirements for hygiene & safety whilst retaining ease of maintenance. MotulTech offers you an extensive set of products and services, including soluble fluids, neat oils and minimum quantity lubrication products. The solution to your quality, productivity or technical problem, will be found in our range.



NEAT MACHINING OILS

Dedicated to machining by chips removal, the MotulTech neat oils range covers many applications. It provides customised solutions and allows to make a rational choice depending on the machined material, the operation severity and the required level of performance. Each product viscosity and formulation are studied to offer an optimal performance/price ratio. The MotulTech neat machining oils range has been developed to answer the specific needs of our clients and to allow them to choose the best option with optimal technical performances without compromising the safety and comfort of the user.



SUPRACUT G

(SUPRACO 1000)

APPLICATION

For the general machining of ferrous and non-ferrous metals. Recommended for turning operations on brass and mild steels. Can also be used in hydraulic systems of machine-tools.

ADVANTAGES

- Compatible with all metals.
- Optimum lubricating and anti-wear properties.
- Good cooling properties.

					AVAILABLE PACKAGING		
	PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST) COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L		
	Supracut 15 G	15	1a	> 160	107184	107185	
	Supracut 20 G	22	1a	>200	107357	104342	
	Supracut 30 G	30	1a	>230	107168	107167	
	Supracut 45 G	45	1a	230	107042	107043	



SUPRACUT 20X

(SUPRACO 3020)

APPLICATION

 $\label{thm:limit} \mbox{High performance neat cutting oil specially developed for difficult machining on ferrous metals.}$

- Free from organo-chlorinated additives.
- Wide range of applications.
- High lubricating and Extreme-Pressure properties.
- Good cooling properties.

				AVAILABLE	PACKAGING
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L
Supracut 20 X	22	4c	>190	110527	104773



SUPRACUT EVO G

(SUPRACO EVO 200)

APPLICATION

For all standard machining operations on ferrous and non-ferrous metals. Particularly suitable for machining operations on aluminum, brass, copper and all types of steels.

ADVANTAGES

- Free from organo-chlorinated additives.
- Reinforced lubricating properties.
- Good anti-wear properties.
- High flash point and high viscosity index.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Supracut EVO 15 G	15	1b	190	107893	107895	
Supracut EVO 30 G	30	1b	230	107894	107896	



SUPRACUT EVO M

(SUPRACO EVO 300)

APPLICATION

For all standard turning operations of hard materials (steel, titanium and Inconel), non-ferrous metals and mild steels.

ADVANTAGES

- Free from organo-chlorinated additives.
- High lubricating and Extreme-Pressure properties.
- · High flash point and high viscosity index.
- · Reduced oil consumption: less mist and less evaporation.
- Improved resistance to oxidation.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Supracut EVO 10 M	10	1b	>170	108191	108192	
Supracut EVO 15 M	15	1b	>210	107928	107929	
Supracut EVO 20 M	22	1b	>210	107984	107985	
Supracut EVO 30 M	30	1b	>220	107963	107964	
Supracut EVO 45 M	45	1b	>220	108193	108194	



SUPRACUT EVO X

(SUPRACO EVO 400)

APPLICATION

For difficult machining on hard metals, stainless steels and hard steels and non-ferrous metals.

- Free from organo-chlorinated additives.
- Optimised lubricity and high Extreme-Pressure capabilities.
- Good cooling properties.
- Machine safety (high flash point).

		COPPER FLASH POINT °C		AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)		FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Supracut EVO 10 X	10	1b	>170	109512	109513	
Supracut EVO 20 X	22	1b	>200	108923	108922	
Supracut EVO 30 X	32	1b	>190	110023	110024	
Supracut EVO 45 X	46	1b	>210	110025	110026	



SUPRACUT EVO 2515

APPLICATION

For all standard machining operations on ferrous and non-ferrous metals. Particularly suitable for machining operations on all types of steels.

ADVANTAGES

- Free from silicone.
- · Good resistance to oxidation.
- High lubricating power and enhanced Extreme-Pressure power.
- \bullet Very good anti-wear power: very good surface condition of the parts.
- · High flash point.

				AVAILABLE PACKAGING		
PRODUCT NAME VISCOSITY GRADES AT 40°C (CST)		COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Supracut EVO 2515	15	1b	180	108238	108239	



SUPRACUT INO SUPRACUT INO GG

APPLICATION

Premium chlorine and sulphur-free range of neat cutting oils designed for standard machining operations on ferrous and non-ferrous metals.

ADVANTAGES

- · Consumption optimization.
- Chlorine and zinc-free.
- Good anti-wear properties.
- · High flash point.
- Low volatility.

					AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
Supracut INO 20 GG	22	1a	>230	110041	110042	110043



SUPRACUT INO MG

APPLICATION

Premium chlorine and sulphur-free range of neat cutting oils designed for general machining operations of all types of metals and in all types of machines.

- Consumption optimization.
- Reinforced lubricating and cooling power.
- Excellent anti-wear and Extreme-Pressure properties.
- · High flash point.
- Low volatility.

					AVAILABLE PACKAGING		
	PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
	Supracut INO 20 MG	21	1a	>200	110038	110039	110040



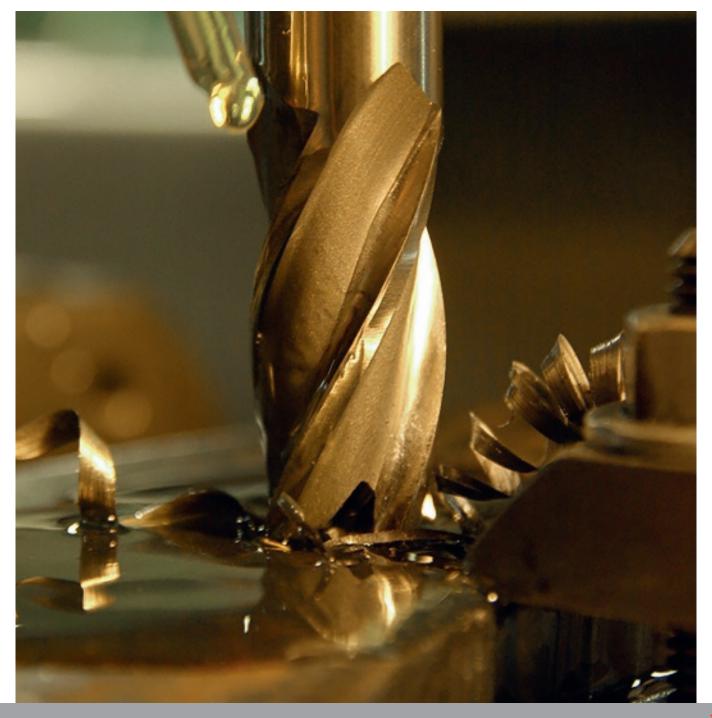
SUPRACUT INO SUPRACUT INO XG

Premium chlorine and sulphur-free range of neat cutting oils designed for all hard machining on ferrous and non-ferrous metals.

- Consumption optimization.
- Reinforced lubricating and cooling power.
- Excellent Extreme-Pressure properties.

- High flash point. Low volatility. Compatible with high pressures.

					AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
Supracut INO 20 XG	22	1a	>200	110020	110021	110022





SPECIALTIES

Thanks to their high content of Extreme-Pressure and lubricating additives, the specialties range products have exceptional performances in severe conditions allowing to reduce tool wear. They are specially dedicated to severe metalworking operations like broaching, deep drilling, tapping and cutting of ferrous metals, stainless steels, nickel alloys and every alloy difficult to machine.



SUPRACUT B

(SUPRACO 5000)

APPLICATION

For severe machining like deep drilling, tapping, deep reaming, broaching operations and all hard machining on ferrous metals and high alloy steels (inconel, stainless steel, titanium).

ADVANTAGES

- Free from organo-chlorinated additives.
- Very high lubricating properties and Extreme-Pressure capacity.
- High cooling properties.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Supracut 15 B	15	4c	>145	104819	104754	
Supracut 30 B	30	4b	>190	104685	104603	
Supracut 40 B	40	4c	>190	104753	104751	
Supracut 50 B	53	4c	>200	108236	108237	



SUPRACUT 30 K

(SUPRACO 556 SB)

APPLICATION

Special neat oil, designed for threading operations by knurling deformation of mild steels and high alloyed steels.

- Very good anti-rust and anti-corrosion properties.
- Very good Extreme-Pressure property.
- High lubricating and cooling power.
- Excellent stability in use.

			AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	FLASH POINT °C	Druм 180 кв		
Supracut 30 K	32	220	100599		



SUPRACO SPRAY

APPLICATION

For very severe machining on all ferrous metals such as manual thread, comb thread, rolling thread, die thread, drilling, manual and semi-automatic tapping.

ADVANTAGES

- Very high lubricating properties and Extreme-Pressure capacity.
- · Good anti-wear properties.
- Increase tool life.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	6 x Aerosols 400 ml		
Supraco Spray	53	4c	100	108719		



SUPRACUT EDM 03

(SAFCO EROLEC 100)

ADDITION

Multipurpose dielectric fluid for use in all discharge machines working by penetration especially for roughing, finishing and superfinishing work.

- Excellent detergent and cooling power.
- High oxidation and pyrolysis resistance.
- Adapted to every type of spraying.
- Strong chips decantation power.

				AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Supracut EDM 03	2.3	1a	103	108598	108628	104568	





GRINDING & SUPERFINISHING

The MotulTech range of grinding products has been formulated to efficiently meet the requirements of superfinishing operations on ferrous and non-ferrous metals. Each product of the range has been developed to answer a specific need. Their formulation ensures high efficiency and the good decantation of fines. Base oils have been carefully selected to limit vaporisation and mists. The viscosity of each product is perfectly adapted to limit consumption.



SUPRAGRIND SUPRAGRIND 05 G

(PROFILINE 1005)

APPLICATION

For high yields machining operations of all types of materials, lapping, grinding and sharpening of HSS and carbide tools with diamond or CBN wheels.

ADVANTAGES

- Free from organo-chlorinated additives and sulphur.
- Compatible with all metals.
- High lubrication and good cooling properties.
- Enhance the finished aspect of the parts.
- High flash point and viscosity index.

				AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Supragrind 05 G	5	1a	132	108278	108279	108280	



SUPRAGRIND SUPRAGRIND 10 X

(PROFILINE 10EP)

APPLICATION

Grinding hard metals of poor machinability and for grinding carbide and highspeed steel tools using diamond grinding wheels or CBN grinding wheels.

- Free from organo-chlorinated additives.
- · Clear and odourless.
- · Compatible with all metals.
- Good lubricating and Extreme-Pressure properties.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Supragrind 10 X	10	1b	155	108878	106995	



SUPRAGRIND EVO O8 M

(PROFILINE 1008)

APPLICATION

For high yields machining operations of all types of materials, lapping, grinding and sharpening of HSS and carbide tools with diamond or CBN wheels.

ADVANTAGES

- Free from organo-chlorinated additives and sulphur.
- · Compatible with all metals.
- High lubrication and good cooling properties.
- Enhance the finished aspect of the parts.
- High flash point and viscosity index.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Supragrind EVO 08 M	8	1a	170	106892	105862	



SUPRAGRIND INO OS GV

(PROFILINE XS8)

APPLICATION

For grinding and sharpening operations with diamond or cubic boron nitride wheels of carbide and HSS tools.

Formulated with synthetic and biodegradable esters.

- Free from organo-chlorinated additives.
- · Compatible with all metals.
- High lubricating power and high pressure absorbing capacity.
- Good cooling properties.
- High flash point.
- Low mist.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Supragrind INO 08 GV	8	1a	>180	109612	109611	





MINIMUM QUANTITY LUBRICATION

The Supracut MQL range dedicated to minimum quantity lubrication is particularly adapted to sawing, drilling, threading and milling operations on every type of material. Each product has a high flash point and a high biodegradability level. The whole range allows minimum oil consumption and easy parts degreasing, with no regulatory labelling.



SUPRACUT MQL SUPRACUT MQL

(SUPRACO 1308E, 1309, 1315, 1320WR)

APPLICATION

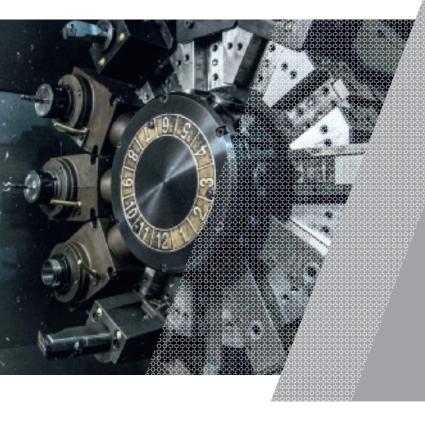
For machining involving chips removal of ferrous and non-ferrous metals, with a micro-spray circulation system.

Designed for operations of milling with milling and sawing tools, cutting and tapping.

- High lubrication and anti-wear properties.
- Very good wettability.
- High viscosity index.
- High flash point.

					AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY GRADES AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	BASE OIL	JERRYCAN 20 L	DRUM 50 KG	Drum 190 kg	
Supracut MQL 15	15	1a	>210	Ester + Vegetable	105575	_	_	
Supracut MQL 20	22	1a	180	Synthetic alcohol	110513	102939	_	
Supracut MQL 30	35	1a	>260	Ester	104375	-	_	
Supracut MQL 45	46	1a	>320	Ester	104237	-	100561	





SOLUBLE MACHINING FLUIDS

MotulTech high performance soluble fluids cover a wide range of machining applications. Their formulations answer the highest regulation standards. In addition, MotulTech proposes a complete range of products and services to ensure fluid maintenance and guarantee the best performances level.



SYNTHETIC FLUID BIOCOOL 3130

APPLICATION

Light to moderate machining and grinding operations on ferrous and hard metals.

ADVANTAGES

- Formaldehyde free.
- Excellent cooling and detergency.
- Good separation from tramp oils.
- Very good protection against corrosion.
- Excellent biostability and stability in use.

					AVAILABLE PACKAGING		
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	DRUM 208 L		
Biocool 3130	Clear yellow-green	3 - 6%	0 - 800	3.1	108514		



SYNTHETIC FLUID BIOCOOL 3210

APPLICATION

Light to moderate grinding and machining operations on ferrous metals and titanium. Recommended for low to medium water hardness.

- Formaldehyde free.
- · High cooling properties.
- Approved by SNECMA on titanium.

					AVAILABLE PACKAGING			
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 200 L	IBC 1000 L	
Biocool 3210	Clear yellow-green	3 - 8%	0 - 800	2.3	105690	105693	105691	



SYNTHETIC FLUID BIOCOOL 3520

APPLICATION

Dedicated to carbides and hard steel grinding requiring advanced cooling properties.

ADVANTAGES

- Formaldehyde and formaldehyde releasers free.
- Excellent biostability and stability in use.
- Good separation from tramp oils.
- Very good particles settling.
- · Avoid cobalt leaching.

					AVAILABLE PACKAGING		
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L	
Biocool 3520	Clear yellow-green	3 - 6%	0 - 600	2.3	108530	108318	



SYNTHETIC FLUID BIOCOOL 3740

APPLICATION

All grinding and machining operations on hard metals. Particularly suited to metalworking which requires high pressure (from 50 to 600 bars).

ADVANTAGES

- Formaldehyde, formaldehyde releasers and boron free.
- SNECMA approval on titanium.
- Excellent lubrication and cooling properties.
- Good separation from tramp oils.
- Optimization of surface roughness and finishes.
- Excellent biostability and stability in use.

					AVAILABLE PACKAGING		
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	DRUM 208 L	A	
Biocool 3740	Clear yellow-green	3 - 15%	0 - 400	1.6	108524		



SYNTHETIC FLUID BIOCOOL 3820

APPLICATION

Light to moderate grinding and machining operations on ferrous metals and non-ferrous metals. Recommended for low to medium water hardness.

- Boron free.
- Formaldehyde free.
- Good lubricity and cooling properties.
- Excellent biostability and stability in use.
- Good separation from tramp oils.

					AVAILABLE PACKAGING			
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 200 L		
Biocool 3820	Clear yellow-green	3 - 12%	0 - 800	2.4	107852	106328		



SYNTHETIC FLUID BIOCOOL 3837 GR

APPLICATION

Moderate to severe grinding and machining operations on ferrous metals. Recommended for low to medium water hardness.

ADVANTAGES

- · Boron free.
- Formaldehyde free.
- Excellent air release properties.
- Very good lubricity and cooling properties.
- Improvement of tool life.

					AVAILABLE PACKAGING		
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	DRUM 202 L]	
Biocool 3837 GR	Clear yellow-green	5 - 12%	0 - 400	1.3	108542		



SEMI-SYNTHETIC FLUID SAFKOOL 6110 CS

APPLICATION

Light to moderate grinding and machining on ferrous metals. Recommended for low to medium water hardness.

ADVANTAGES

- Formaldehyde free.
- · High cooling properties.
- Low consumption.
- Very good biostability.
- Cleanliness of machines and parts.

					AVAILABLE PACKAGING			
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Safkool 6110 CS	Translucent	5 - 8%	100 - 400	2.5	109361	109360	109359	



SEMI-SYNTHETIC FLUID SAFKOOL 6210

APPLICATION

Light to moderate grinding and machining on ferrous metals. Can also be used for standard machining operations on yellow metals in certain conditions.

- Formaldehyde free.
- Excellent cooling properties.
- Excellent biostability and stability in use.
- Operator friendly.
- Cleanliness of working environment.

					AVAILABLE PACKAGING			
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Safkool 6210	Translucent	4 - 8%	200 - 500	1.7	108531	108512	108513	



SEMI-SYNTHETIC FLUID SAFKOOL 6220

APPLICATION

Light to moderate machining operations on ferrous and non-ferrous metals. Recommended for medium to very high-water hardness.

ADVANTAGES

- Formaldehyde and bactericide free.
- Excellent stability in hard waters.
- Cleanliness of machines and parts.

					AVAILABLE PACKAGING			
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Safkool 6220	Translucent	5 - 15%	200 - 800	1.6	109628	109626	109627	



SEMI-SYNTHETIC FLUID SAFKOOL 6420

APPLICATION

Moderate to severe machining and grinding operations on all metals, including aerospace alloys. Recommended for soft to medium water hardness. Suitable for high pressure jet (up to 70 bars).

ADVANTAGES

- Formaldehyde free.
- Good release of tramp oils.
- Approved by SNECMA on aluminum and titanium.
- Product free of safety labelling.
- Reduction of tools wear and improvement of surface roughness.

						AVAILABLE PACKAGING		
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Safkool 6420	Translucent	5 - 12%	50 - 800	1.65	109758	109747	109746	



SEMI-SYNTHETIC FLUID SAFKOOL 6620

APPLICATION

For severe operations like broaching, boring, tapping and some forming applications on ferrous, high alloyed and stainless steels.

- Formaldehyde free.
- Excellent cooling and Extreme-Pressure properties.
- Optimization of surface finish.
- Excellent biostability and stability in use.
- Operator friendly.

					AVAILABLE PACKAGING			
PRODUCT NAME	APPEARANCE CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)		WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 200 L		
Safkool 6620	Translucent	4 - 20%	200 - 500	1.6	105682	105683		



SEMI-SYNTHETIC FLUID SAFKOOL 6817 GR

APPLICATION

Light to moderate machining and grinding operations on ferrous and non-ferrous metals.

ADVANTAGES

- Formaldehyde and boron free.
- Very good cooling and detergency properties.
- Very good particles settling properties.

					AVAILABLE PACKAGING	
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	DRUM 200 L	1
Safkool 6817 GR	Translucent	5 - 8%	100 - 500	1.5	107375	



SEMI-SYNTHETIC FLUID SAFKOOL 6820 SW

APPLICATION

Machining of ferrous and non-ferrous alloys, including standard aluminum alloys. Suitable for dilution in soft water and uses under high pressure.

ADVANTAGES

- Boron, bactericide, formaldehyde & formaldehyde releasers free.
- Excellent lubricating & cooling properties.
- Excellent non-foaming properties.
- · High pressure compatible.
- Optimization of surface finish and endurance.
- Excellent biostability and stability in use.

						AVAILABLE PACKAGING		
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Safkool 6820 SW	Translucent	4 - 15%	100 - 500	1.5	109491	109492	109495	



SEMI-SYNTHETIC FLUID SAFKOOL TMC

APPLICATION

Water emulsifying metalworking fluid concentrate dedicated to steel ERW tube manufacturing operations (including galvanized steels).

- $\bullet \ Boron, formalde hyde \ \& formalde hyde \ releasers \ free.$
- Excellent cooling & detergent properties.
- Good separation from tramp oils.
- Very good protection against corrosion.
- Excellent biostability and stability in use.

					AVAILABLE PACKAGING		
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	DRUM 208 L	IBC 1000 L	
Safkool TMC	Translucent	5 - 7%	5 - 500	1.4	107966	107967	



EMULSION STABILIS 9120

APPLICATION

Water soluble metalworking fluid concentrate dedicated for general machining of copper alloys, cast iron, steel and standard aluminum alloys.

ADVANTAGES

- Excellent lubricating and cooling properties.
- · Low foaming product.
- Excellent biostability in use.

					AVAILABLE PACKAGING			
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L		
Stabilis 9120	Milky white	4 - 10%	200 - 600	0.88	109073	109072		



EMULSION STABILIS 9220

APPLICATION

Light to moderate machining operations on ferrous and non-ferrous metals. Suitable for medium to high hardness water.

ADVANTAGES

- Formaldehyde free.
- Good compromise between lubricating and cooling properties.

					AVAILABLE PACKAGING			
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Stabilis 9220	White opalescent	5 - 8%	100 - 600	1.2	108526	108509	108510	



EMULSION STABILIS 9230

APPLICATION

Medium to severe machining operations on ferrous and non-ferrous metals, including all aerospace alloys. High pressure compatible (up to 70 bars).

- Formaldehyde free.
- High lubrication performance.
- Optimization of surface roughness and finishes.
- Approved by SNECMA on aluminum and titanium.

						AVAILABLE PACKAGING	
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
Stabilis 9230	White opalescent	5 - 15%	200 - 500	1.0	108529	108520	108523



EMULSION STABILIS 9837 AL

APPLICATION

Heavy duty machining on aluminum (cast & automotive) and steel alloys. Suitable for both soft and hard water.

ADVANTAGES

- Formaldehyde and boron free.
- Good cooling and detergency properties.
- Very good lubricity.
- Good emulsion stability, even in hard waters.
- Excellent biostability.

					AVAILABLE PACKAGING	
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	DRUM 200 L]
Stabilis 9837 AL	Milky white	10%	100 - 800	1.0	107373	



EMULSION STABILIS 9910 AL

APPLICATION

Water soluble concentrate particularly suited to all machining processes on steels, aluminum and its alloys. Particularly effective for all machining operations on ferrous and non-ferrous alloys on both soft and hard water.

ADVANTAGE

- Formaldehyde and boron free.
- Good cooling and detergent properties.
- Excellent biostability and stability in use.

						AVAILABLE PACKAGING	
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
Stabilis 9910 AL	Milky white	5 - 15%	100 - 600	0.97	109550	109551	109549



EMULSION STABILIS 9920 AL

APPLICATION

All machining processes on aluminum and its alloys. All machining operations on ferrous and non-ferrous alloys on both soft and hard water.

- $\bullet \ Boron, formalde hyde \ and formalde hyde \ releaser \ free.$
- Very good cooling and detergency properties.
- · Good lubrication properties.
- Excellent stability in use.
- Excellent biostability.

						AVAILABLE PACKAGING	
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
Stabilis 9920 AL	Milky white	4 - 15%	100 - 600	0.98	108258	109514	108260

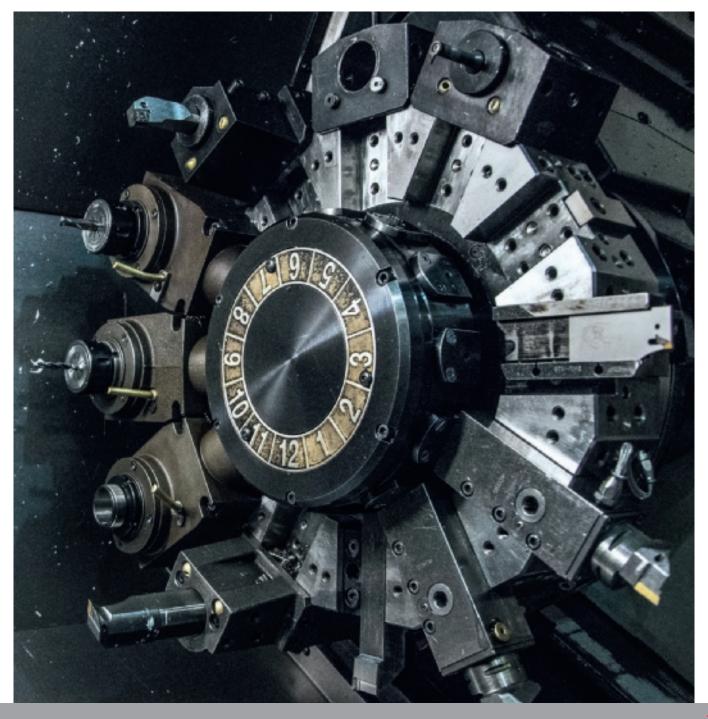


EMULSION SAFCOLITH GR 2 NS

Soluble concentrate which facilitates granite cutting and increases the life of diamond tools. It can be used for cutting of granite blocks on cutting machines or multi-disks machines.

- Formaldehyde & boron free.
- Can be used on a wide range of granite.
- Excellent lubricating power for stone cutting.
- Increased diamond tools life.No gumming.

					AVAILABLE	PACKAGING
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION OF USE (DEPENDS ON THE APPLICATION AND THE MATERIALS)	WATER HARDNESS (PPM)	REFRACTOMETER FACTOR	Drum 170 kg	IBC 1000 L
Safcolith GR 2 NS	Milky white	1.5 - 2.5%	100 - 300	1.1	101962	100715





PART 1

PROCESS LUBRICANTS



METAL & SURFACE TREATMENT

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FORMING

Every forming, drawing and pressing application has specific constraints, each of our customers is unique. It is for this reason that MotulTech offers a wide range of soluble and neat deformation products. Listening to your requirements, our experts develop products that reconcile the search for high performance and productivity with the respect for users and the increasingly important environmental factors. Expert assistance is always available to tailor-make solutions to fit your process.



COLD FORMING UNIVERSELLE SC

APPLICATION

Multi-purpose range of neat oils for cold heading, tapping applications and suitable for the machine-tools lubrication.

UNIVERSELLE 800 SC can be used as a booster for neat cutting and forming oils from 5 to 20%.

- Free from organo-chlorinated additives.
- $\bullet \, {\sf UNIVERSELLE} \, {\sf SC} \, {\sf covers} \, {\sf cold} \, {\sf heading} \, {\sf and} \, {\sf lubrication} \, {\sf applications} \, {\sf at} \, {\sf once}. \\$
- Non-staining on non-ferrous metals.
- Very high Extreme-Pressure capacities.
- · No corrosion.
- Very high lubrication properties.

					AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
UNIVERSELLE 55 SC	54	1a	214	-	108488	108489
UNIVERSELLE 68 SC	68	1a	224	-	_	104855
UNIVERSELLE 90 SC	90	1a	214	_	104875	104609
UNIVERSELLE 150 SC	145	1a	216	-	_	108490
UNIVERSELLE 800 SC	155	4b	230	104787	106398	104771



COLD FORMING UNIVERSELLE 68 EP

APPLICATION

High-Performance neat oil designed for severe cold heading and tapping operations on ferrous metals.

ADVANTAGES

- Free from organo-chlorinated additives.
- High wettability ensuring an even distribution of the lubricant between the tool and machining part.
- High Extreme-Pressure properties.
- High oxidation stability.
- Good separation from wire drawing soaps.
- · Limited smoke.
- · Easy to clean with standard cleaning processes.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Universelle 68 EP	68	4c	> 200	109718	109979	



COLD FORMING CENTER OIL FZ-4001E

APPLICATION

High-performance neat cold forming oil. Suitable for:

- Cold forging and stamping of press on steel, carbon steel, alloyed steel and stainless steel.
- Drawing of steel, carbon steel, alloyed steel and stainless steel.

ADVANTAGES

- Free from organo-chlorinated additives.
- · Extended tool life.
- Better surface finishing.

	JCT NAME VISCOSITY COPPER AT 40°C (CST) CORROSION		AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)		FLASH POINT °C	DRUM 208 L	}
Center Oil FZ-4001 E	128	1a	204	104602	



BLANKING & STAMPING CENTER OIL FZ-8081 E

A DDI ICATION

High-performance neat oil designed for vertical press or transfer machines applications. Recommended for thin metal sheets (around 3 mm) stamping and cutting. Particularly suitable for stainless steels.

- Free from organo-chlorinated additives.
- Extended tool life thanks to EP and lubricating properties.
- Better surface finishing.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L		
Center Oil FZ-8081 E	22	4a	188	106508		



BLANKING & STAMPING CENTER OIL FZ-8209 E

APPLICATION

High-performance neat oil designed for vertical press or transfer machines applications. Recommended for thin metal sheets (around 3 mm) stamping and cutting. Particularly suitable for stainless steels.

ADVANTAGES

- $\bullet \ \mathsf{Free} \ \mathsf{from} \ \mathsf{organo\text{-}chlor} \mathsf{inated} \ \mathsf{additives}.$
- Extended tool life thanks to EP and lubricating properties.
- · Better parts finishing.

				AVAILABLE	AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Center Oil FZ-8209 E	387	4c	192	105801	105910	



STAMPING & BLANKING SUPRACO ELECTRIC 40A

APPLICATION

Neat oil used for the impregnation of induction core contactors, circuit breakers and other similar devices.

ADVANTAGES

- Reduced compaction of induction metal sheet.
- Can be used for both degreasing and impregnation before assembly.
- Reduced consumption (less than 50 mg per assembly).
- Water repellent, prevents scrubbing and oxidation.

				AVAILABLE PACKAGING
PRODUCT NAME	VISCOSITY AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	Drum 180 кg
Supraco Electric 40A	48	1a	238	100816



STAMPING & BLANKING CADREX DR SC

APPLICATION

Neat oil designed for drawing, bending, reshaping and fine blanking on all ferrous and non-ferrous metals, under low-duty conditions.

Approved by RENAULT.

- Non-chlorinated product.
- $\bullet \ \ \text{No yellowing under HPRL lightning.}$
- Provides short-term protection if not rinsed.
- Lubricant residues easy to clean before paint application.

				AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	
Cadrex DR 40 SC	40	1a	> 155	107345	
Cadrex DR 100 SC	100	1a	>200	106980	
Cadrex DR 220 SC	220	1a	256	106952	



VANISHING OIL CADREX V 877

APPLICATION

Vanishing fluid designed for the forming and cutting of thin sheets of ferrous and non-ferrous metals.

ADVANTAGES

- Multi-purpose and versatile thanks to its fluidity.
- · No degreasing step after metalworking.
- · Ready to use.
- Contains an Extreme-Pressure, chlorine-free additive.
- Compatible with non-ferrous metals.

				AVAILABLE PACKAGING		
PRODUCT NAME VISCOSITY AT 40°C (CST) COPPER CORROSION		FLASH POINT °C	JERRYCAN 20 L	DRUM 200 L		
Cadrex V 877	1.5	1a	> 62	110506	104874	





APPLICATION

Vanishing fluid, specifically designed for the forming and cutting of steel, stainless steel, aluminum and copper alloys. Complies with US FDA status and meets the requirements of the food industry.

ADVANTAGES

- Odourless.
- High evaporation rate.
- · Low surface tension.
- Application: low pressure spraying, roller, impregnation by dipping.

			FLASH POINT °C	AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	COPPER CORROSION		JERRYCAN 20 L	DRUM 200 L	
Cadrex EV 1100	1.4	1a	62	109829	104715	
Cadrex EV 1400	1.4	1a	62	109830	107358	
Cadrex EV 1600	1.5	1a	62	110281	_	
Cadrex EV 1800	< 7	4b	70	109563	-	
Cadrex EV 4012	2.6	1a	105	109831	105855	



NEAT & SOLUBLE FORMING FLUID

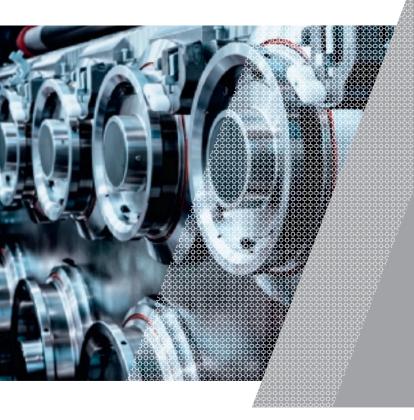
CADREX FL 100

APPLICATION

Emulsifying neat oil for deformation, stamping and fine blanking operations from medium to heavy duty. Reinforced Extreme-Pressure properties allowing operations on hard materials such as stainless steel. Particularly suitable for stainless steels.

- Very high lubrication properties.
- Very high Extreme-Pressure capacities.
- · Low foaming.
- Excellent biostability.

				AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	COPPER CORROSION	FLASH POINT °C	DRUM 208 L	
Cadrex FL 100	100	4b	194	106088	



WIRE DRAWING

SUPRADRAW is a comprehensive range of wire drawing lubricants which is dedicated for copper wire drawing applications. Motul Tech is committed to provide the best balance between lubrication and detergency depending on the application. Our range is designed to be used on rod breakdown, single wire and multi-wire machines.



COPPER WIRE DRAWING SUPRADRAW 211

APPLICATION

Water-emulsifiable concentrate dedicated to copper wire drawing applications. Suitable for applications ranging from Rod breakdown to fine copper wire, tinned copper or enamelled copper wire.

ADVANTAGE

- Optimal lubrication.
- Very good surface condition of the wires.
- · Low foaming.
- Resists destabilization by hard water salts and dissolved copper ions.
- Excellent filterability.

				AVAILABLE PACKAGING		
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION %	PH AT 5%	REFRACTOMETER FACTOR	DRUM 208 L	4
Supradraw 211	Brown	4-15%	9.1	1.07	109956	



COPPER WIRE DRAWING SUPRADRAW 311

APPLICATION

Soluble concentrate developed for intermediate to super fine copper wire drawing operations. Excellent lubrication and detergency properties which are particularly suitable for fine and super fine copper wire drawing operations.

- Reduces the risk of wire breakage.
- Reduces die wear.
- Very good biostability.
- Low foaming.
- · Allows a clean finish.
- Good filtration.
- Corrosion resistance.

					AVAILABLE PACKAGING	
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION %	PH AT 5%	REFRACTOMETER FACTOR	DRUM 208 L	
Supradraw 311	Milky	2-12%	8.9	1.2	110694	



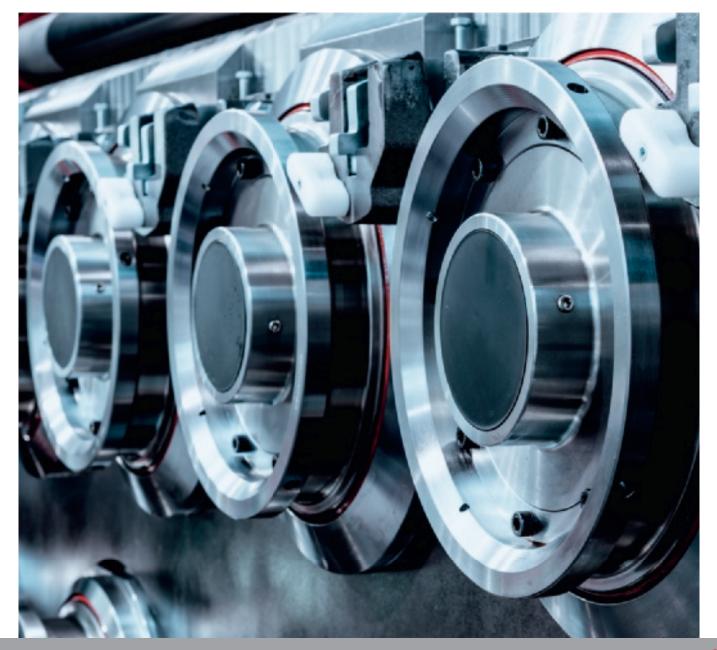
COPPER WIRE DRAWING SUPRADRAW 411

APPLICATION

Soluble concentrate developed for copper wire drawing operations. Excellent detergency properties which are particularly suitable for fine and super fine copper wire drawing operations.

- Reduces the risk of wire breakage.
- · Very good biostability.
- Low foaming.
- Allows a clean finish.
- Good filtration.
- Corrosion resistance.

					AVAILABLE PACKAGING	
PRODUCT NAME	APPEARANCE IN DILUTION	CONCENTRATION %	PH AT 5%	REFRACTOMETER FACTOR	DRUM 208 L]
Supradraw 411	Colorless	2-7%	9.6	2.1	110553	





HEAT TREATMENT

In the light of extensive expertise, and being a crucial member of the A3TS Heat Treatment Association, MotulTech offers a range covering all applications from cold quenching with an aqueous quenching polymer to hot quenching at 180°C. This range is the result of a long joint development program with heat treatment specialists. The search for high performance and productivity, with the respect for users and the environment, are the key factors. MotulTech technical experts will share their knowledge with the fundamental aim of assisting in your process improvement programmes by combining expertise with a comprehensive range of Heat Treatment products and services.



COLD QUENCHING THERMIC TO 10

APPLICATION

Quenching of parts of simple geometry, made of good quenching power steel.

ADVANTAGES

- Excellent thermic shock resistance.
- Reduced calefaction area.
- Reduced fire risks thanks to its high flash point.
- \bullet Range of working temperature: 30°C 90°C .

				AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	
Thermic TO 10	28	220	Normal	109467	



COLD QUENCHING THERMIC TO 19 R

APPLICATION

Quenching of parts of complex geometry, made of semi-hard carbon steel, low to medium alloyed.

- Reduced strain and crack risks.
- Excellent thermic shock resistance.
- Reduced calefaction area.
- Reduced fire risks thanks to its high flash point.

PRODUCT NAME				AVAILABLE	PACKAGING
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	IBC 1000 L
Thermic TO 19 R	29	218	Accelerate	108497	109498



COLD QUENCHING THERMIC TO 20 R

APPLICATION

Quenching of steels or alloyed steels of low hardening capacity.

ADVANTAGES

- · Reduced strain and crack risks.
- Excellent thermic shock resistance.
- Reduced calefaction area.
- Reduced fire risks thanks to its high flash point.

				AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	IBC 1000 L
Thermic TO 20 R	22	> 190	Very accelerate	106824	104959



COLD QUENCHING THERMIC TO 26 R

APPLICATION

Quenching of alloyed or non-alloyed steels, semi-hard or hard to treat with complex geometry.

ADVANTAGES

- · Reduced strain and crack risks.
- Excellent thermic shock resistance.
- Reduced calefaction area.
- Reduced fire risks thanks to its high flash point.
- Range of working temperature: 30°C 90°C.

PRODUCT NAME				AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	IBC 1000 L
Thermic TO 26 R	27	> 210	Very accelerate	109328	109329



COLD QUENCHING THERMIC INO 130

APPLICATION

Very accelerated cold quenching oil formulated on the basis of synthetic base stocks coming from natural gas.

Designed for heat treatment of alloyed or non-alloyed steel parts.

- Reduced evaporation.
- Minimise deformation and cracks risks.
- Very short vapor phase on cooling curve.
- Very good resistance to oxidation.
- Fire risks reduced thanks to its high flash point.
- Low consumption.

					AVAILABLE	PACKAGING
	PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	IBC 1000 L
	Thermic INO 130	22	> 230	Very accelerate	109994	110592



COLD QUENCHING THERMIC EVO 140

APPLICATION

Quenching oil formulated from highly refined base oils, especially adapted for heat treatment of parts in non-alloyed and alloyed steels with bad hardenability.

ADVANTAGES

- Use temperature: 40-70°C.
- · Minimum loss on parts thanks to its fluidity.
- · Low evaporation.
- Reduced deformation and cracks risks.
- · Excellent resistance to oxidation.

PRODUCT NAME				AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	IBC 1000 L
Thermic EVO 140	13	> 185	Very accelerate	110256	110257



SEMI-HOT QUENCHING THERMIC 15

APPLICATION

Martensitic quenching of light geometry parts made of low to medium alloyed steels for mechanic construction.

ADVANTAGES

- Reduced strain and crack risks.
- Excellent thermic shock resistance.
- Cost effective product, thanks to its fluidity at working temperature.
- Optimised production due to the stability of quenching power.
- Reduced fire risks thanks to its high flash point.

		AVAILABLE	PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	IBC 1000 L
Thermic 15	40	> 230	Slightly accelerate	108778	108770



SEMI-HOT QUENCHING THERMIC 30 R

APPLICATION

Semi-hot quenching oil recommended for the quenching of steels or alloyed steels, with low hardening capacities.

- Reduced strain and crack risks.
- Excellent thermic shock resistance.
- Cost effective product, thanks to fluidity at working temperature.
- Reduced calefaction area.
- Reduced fire risks thanks to its high flash point.

PRODUCT NAME				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	IBC 1000 L	
Thermic 30 R	28	> 210	Very accelerate	109330	109331	



SEMI-HOT QUENCHING THERMIC INO 235

APPLICATION

Semi-hot neat quenching oil formulated on the basis on synthetic base stocks coming from natural gas. Designed for quenching of steels with bad hardenability.

ADVANTAGES

- Reduced deformation and cracks risk.
- Excellent resistance to oxidation.
- Reduced calefaction area.
- Reduced fire risks thanks to its high flash point.
- · Low consumption.

				AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	
Thermic INO 235	25	> 222	Very accelerate	110096	



HOT QUENCHING THERMIC 100

APPLICATION

Heat treatment of alloyed steels and semi-alloyed steels: case hardening of low to medium alloyed steels, carburizing of low alloyed steels, and hot quenching of carbon hard steels.

Approved by PEUGEOT CITROEN.

ADVANTAGES

- Reduced strain and crack risks.
- Excellent thermal stability.
- · High quenching speed.
- Even results due to stable viscosity.
- Reduced fire risks thanks to its high flash point.
- Low consumption due to fluidity, reduced drag-out losses.

				AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	IBC 1000 L		
Thermic 100	123	> 245	Accelerate	109282	109283		



HOT QUENCHING THERMIC 100 FC

APPLICATION

Quenching of low and medium alloyed steels with complex shape.

- Wide range of use temperature: 80-160°C.
- Reduced strain and crack risks.
- Excellent thermal stability.
- $\bullet\, \text{Uniformed results}.$
- Reduced fire risks thanks to its high flash point.
- Low consumption.

				AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	
Thermic 100 FC	111	264	Very accelerate	108898	



VACUUM QUENCHING THERMIC SV 6

APPLICATION

Vacuum heat treatment and quenching oil incorporated on all kind of parts, every size and geometry.

ADVANTAGES

- · Constant cooling power.
- · Leaves no stain on the parts.
- · Simplified and economical waste treatment.
- Excellent oxidation and cracking resistance.
- Working temperature: 30°C-130°C.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	DRUM 208 L	IBC 1000 L	
Thermic SV 6	35	244	Normal	108495	108496	



VACUUM QUENCHING THERMIC EVO 420

APPLICATION

Accelerated quenching oil formulated from highly refined base oils dedicated to carbon steels and alloyed steels vacuum quenching. It can also be used in BATCH furnaces for quenching, cementation and carbonitriding operations.

ADVANTAGES

- Use temperature: 50-130°C.
- Minimum loss on parts thanks to its fluidity.
- Reduced deformation and cracks risks.
- Excellent resistance to oxidation.
- Reduced fire risks due to its high flash point.

				AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	IBC 1000 L	-S
Thermic EVO 420	29	> 220	Accelerate	109707	



VACUUM QUENCHING THERMIC EVO 430

APPLICATION

Very accelerated quenching oil formulated from highly refined base oils dedicated to bad hardenability steels vacuum quenching. It can also be used in BATCH furnaces for quenching, cementation and carbonitriding operations.

- Use temperature: 50-130°C.
- \bullet Minimum loss on parts thanks to its fluidity.
- Reduced deformation and cracks risks.
- Excellent resistance to oxidation.
- Reduced fire risks due to its high flash point.

				AVAILABLE PACKAGING
PRODUCT NAME	VISCOSITY AT 40°C (CST)	FLASH POINT °C	COOLING SPEED	IBC 1000 L
Thermic EVO 430	29	> 220	Very accelerate	110019



SUPERFICIAL QUENCHING THERMIC SH 615

APPLICATION

Soluble quenching polymer designed for superficial quenching and heating by induction or conduction. Can also be used for tempering stop.

ADVANTAGES

- · Formaldehyde free.
- Economic: low concentration in use.
- · Wide range of use allowing treatment of different steels.
- Very good resistance to microorganisms (bacteria and fungi).
- Good protection against corrosion (machine parts and quenched parts).
- Easy cleaning of quenched parts.

					AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	PH AT 10%	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 209 L	IBC 1000 L
Thermic SH 615	62	9.3	2.5	104374	100777	100778



INDUCTION QUENCHING THERMIC SP

APPLICATION

Water soluble, synthetic liquid, used diluted in water for surface hardening operations which facilitates efficient protection against the corrosion of the treated parts as well as machine parts.

ADVANTAGES

- Product stable in service.
- · Can be used in several water hardness.
- · Leaves no deposit on the parts.
- Excellent filterability.
- Strong resistance to microorganisms.

		AVAILABLE	PACKAGING
PRODUCT NAME	REFRACTOMETER FACTOR	JERRYCAN 20 L	DRUM 208 L
Thermic SP	3.3	107289	108499





APPLICATION

Tempering stop and blackening operations. Suitable for tempering stop of small parts not sensitive to distortion.

Suitable for blackening and corrosion protection of steel parts.

- Odourless fine emulsion.
- · Good stability in use.
- Boron free.
- Good protection against corrosion.

		AVAILABLE	PACKAGING
PRODUCT NAME	REFRACTOMETER FACTOR	DRUM 208 L	IBC 1000 L
Thermic B	1.1	107909	110526



MASS QUENCHING THERMIC FGP

APPLICATION

Water soluble synthetic fluid for mass quenching. Can be diluted between 10% to 25%, according to steels shades to be treated. Recommended bath temperature between 25°C and 45°C.

ADVANTAGES

- Reduced fire risks and smokes emissions.
- · Reduced cracking risks.
- Stable in use.
- Reduced consumption.

		AVAILABLE	PACKAGING
PRODUCT NAME	VISCOSITY AT 40°C (CST)	DRUM 210 KG	IBC 1022 KG
Thermic FGP	247	100776	102009



QUENCHING BOOSTER THERMIC BOOST

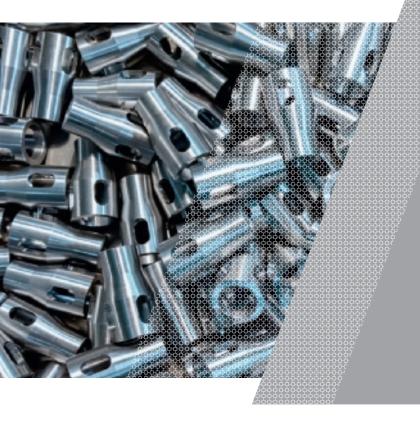
APPLICATION

Quenching performance enhancer for heat treatment applications, compatible with all neat quenching lubricants from THERMIC range. Developed to keep the quenching oil properties stable.

- Compatible with our THERMIC range.
- Keep the physico-chemical properties of the quenching oil.
- Very high thermal shock resistance.
- Lower the consumption.
- No labelling.

		AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	DRUM 208 L	
Thermic Boost	176	110562	





CLEANERS

Crucial and common place in all the workshops, cleaning products have to offer optimal cleaning performance while presenting the least possible risks for the industrial and the users. They have to meet stringent requirements such as strong degreasing power, compatibility with the materials to clean and low health & safety risks. The new formulas of cleaners allow the industrials to find the balance between these seemingly contradictory requirements. The MotulTech range offers solutions that cover most of the needs of industrials, in full conformity with the current legislation.



SOLVENT CLEANER SAFCO KLEEN 21

APPLICATION

Degreasing solvent for:

- Degreasing mechanical and plastic parts.
- Cleaning of excess glue or resin.
- Preparation of surfaces prior to bonding or painting.
- Cleaning polluted electrical equipment.
- Maintenance in food processing environments.

ADVANTAGES

- Fast evaporation.
- · High purity index.
- Excellent degreasing solvent suitable for considerable levels of pollution.
- Large field of applications.

					AVAILABLE	PACKAGING
PRODUCT NAME	SOLVENT POWER (KB INDEX)	COPPER CORROSION	FLASH POINT °C	EVAPORATING RATE	JERRYCAN 25 L	DRUM 200 L
Safco Kleen 21	90	1a	23	9 min	104542	106130



SOLVENT CLEANER SAFCO KLEEN 53

APPLICATION

Degreasing solvent for metallic parts cleaning in food processing environment.

- NSF approval.
- Operator friendly.
- Advanced solvency properties facilitating the good decantation of pollutants.

						AVAILABLE PACKAGING	
PRODUCT NAME	SOLVENT POWER (KB INDEX)	COPPER CORROSION	FLASH POINT °C	EVAPORATING RATE	JERRYCAN 25 L	DRUM 200 L	IBC 1000 L
Safco Kleen 53	45	1a	30	15 min	110118	110119	100848



SOLVENT CLEANER SAFCO KLEEN 60

APPLICATION

Mechanical parts, metal or plastics cleaning of:

- Metal working oils, fat or soap greases.
- Temporary protection products.
- Polluted substrates, organic or inorganic compounds.
- Polluted electrical equipment and electric motors.

ADVANTAGES

- Compatible with all metals, including coated or precious metals.
- Compatible with most thermoplastics and plastics.
- Can be used on most composites.
- High flash point.

						AVAILABLE PACKAGING	
PRODUCT NAME	SOLVENT POWER (KB INDEX)	COPPER CORROSION	FLASH POINT °C	EVAPORATING RATE	JERRYCAN 25 L	DRUM 200 L	IBC 1000 L
Safco Kleen 60	33	1a	56	42 min	104540	106180	104637



SOLVENT CLEANER SAFCO KLEEN 92

APPLICATION

Multi-purpose cleaning product for:

- Cleaning of non-polymerized excess glues or resins.
- · Cleaning of ink.
- Surface preparation.
- Defluxing.

ADVANTAGES

- Multi-purpose.
- Product without flash point.
- Fast evaporation.
- Compatible with metals, some plastics and elastomers.

					AVAILABLE PACKAGING			
PRODUCT NAME	SOLVENT POWER (KB INDEX)	COPPER CORROSION	FLASH POINT °C	EVAPORATING RATE	JERRYCAN 25 L	DRUM 200 L		
Safco Kleen 92	113	1a	na	15 min	110094	110095		



SOLVENT CLEANER SAFCO KLEEN VF 150

APPLICATION

Fountain degreasing fluid. Removal of all used lubricants, metalworking fluids (soluble and neat), protection fluids, tars...

- VOC free.
- Odourless.
- Vegetable oil base.Non-flammable.
- Good dermatological behaviour.
- Good compatibility with all materials.

					AVAILABLE PACKAGING	
PRODUCT NAME	SOLVENT POWER (KB INDEX)	COPPER CORROSION	FLASH POINT °C	EVAPORATING RATE	DRUM 200 L	
Safco Kleen VF 150	50	1a	103	Does not evaporate	102521	



SOLVENT CLEANER SAFCO KLEEN VF 200

APPLICATION

Technical fluid specifically developed to replace petroleum and chlorinated solvents in their applications to cold or hot surface. Suitable for sensitive materials and confined environments. Cleaning or degreasing of mechanical parts or machining fluid residues.

ADVANTAGES

- · Vegetable ester based.
- · VOC free.
- Non-flammable. Flash point over 170°C, avoiding any ATEX risks.
- Compatible with most materials, metals, plastics, elastomers, rubber, painted surfaces.

					AVAILABLE PACKAGING		
PRODUCT NAME	SOLVENT POWER (KB INDEX)	COPPER CORROSION	FLASH POINT °C	EVAPORATING RATE	DRUM 200 L	}	
Safco Kleen VF 200	> 100	1a	> 170	Does not evaporate	103126		



SAFCO KLEEN V

APPLICATION

Cleaning solvent based on aliphatic hydrocarbons with a high flash point. Adapted for cleaning in vacuum machines in replacement of chlorinated solvents.

ADVANTAGES

- · Alternative to chlorinated solvents.
- Compatible with all metals, alloys, glass and ceramic.
- Efficient cleaning thanks to its formulation based on aliphatic hydrocarbons.
- A3 class solvent with a high flash point.
- Compatible with most plastics, elastomers and painted surfaces.

				AVAILABLE PACKAGING		
PRODUCT NAME VISCOSITY AT 40°C		FLASH POINT °C	BOILING TEMPERATURE AREA °C	DRUM 200 L	9	
Safco Kleen V	1.1	> 55	171 - 191	108196		



SOLVENT CLEANER SAFCO KLEEN INO 230

APPLICATION

High-performance degreasing agent specifically developed to replace petroleum and chlorinated solvents in their applications to cold or hot surface.

- Strong degreasing power.
- Biodegradable: 100% vegetable origin formula.
- \bullet Non-flammable, with a flash point of 120°C, it avoids any ATEX risks.
- Compatible with most materials, metals, plastics, elastomers, rubber, painted surfaces.

					AVAILABLE PACKAGING		
PRODUCT NAME	SOLVENT POWER (KB INDEX)	FLASH POINT °C	EVAPORATING RATE	BIODEGRADABILITY	JERRYCAN 20 L	Í	
Safco Kleen INO 230	> 200	120	Does not evaporate	> 80%	109789		



AQUEOUS CLEANER SAFKLEEN 1112

APPLICATION

Water-based cleaner used as a brightener deoxidizer for steels and ferrous materials

ADVANTAGES

- Remarkable brightening properties.
- Fasy to rinse
- Use at low temperature.
- Can be used with any type of water.
- Boron free.
- Very good biostability.

					AVAILABLE PACKAGING		
PRODUCT NAME	PH PURE	TEMPERATURE °C	CONCENTRATION %	MATERIALS	JERRYCAN 21.5 L	DRUM 172 L	
Safkleen 1112	<2	20 - 60	5 - 30	Ferrous & Aluminum	110343	110355	



AQUEOUS CLEANER SAFKLEEN 221

APPLICATION

Alkaline water-based cleaner used by dipping or spraying for interoperational degreasing of ferrous metals.

ADVANTAGES

- Protects parts effectively.
- Easy to rinse.
- · Low foaming.
- · Can be used with any type of water.
- Boron and phosphate free.
- Very good biostability.

					AVAILABLE PACKAGING		
PRODUCT NAME	PH PURE	TEMPERATURE °C	CONCENTRATION %	MATERIALS	JERRYCAN 24 L	DRUM 202 L	
Safkleen 221	11.2	40 - 70	1 - 10	Ferrous	110361	110360	1



AQUEOUS CLEANER SAFKLEEN 224

APPLICATION

Non-nitrite, water-based degreaser that can be used by spraying or up to a pressure of 5 bar. Used in the automotive and mechanical industries. Suitable for removing all types of oil.

- Protects parts effectively.
- · Easy to rinse.
- · Low foaming.
- Can be used with any type of water.
- Boron and phosphate free.
- Very good biostability.
- Biodegradable.

					AVAILABLE PACKAGING	ING	
PRODUCT NAME	PH PURE	TEMPERATURE °C	CONCENTRATION %	MATERIALS	JERRYCAN 24.5 L	Á	
Safkleen 224	9.7	20 - 60	0.5 - 3	All metals	110541		



AQUEOUS CLEANER SAFKLEEN 234

APPLICATION

Water-based cleaner that can be used, either by spraying or by ultrasonic immersion, for the degreasing and the temporary passivation of all types of metals.

ADVANTAGES

- · Corrosion protection.
- Easy to rinse.
- · Low foaming.
- Can be used with any type of water.
- Boron and phosphate free.
- Very good biostability.

					AVAILABLE PACKAGING		
PRODUCT NAME	PH PURE	TEMPERATURE °C	CONCENTRATION %	MATERIALS	JERRYCAN 24 L	DRUM 192 L	
Safkleen 234	10.5	30 - 60	1 - 5	All metals	110359	110358	



AQUEOUS CLEANER SAFKLEEN 334

APPLICATION

Caustic free water-based cleaner used for degreasing by spraying on aluminum, iron, cast iron, zinc, copper and its alloys, contaminated by greases and mineral oils.

ADVANTAGES

- Protection against oxidation.
- Easy to rinse.
- Fully organic.
- Use at low temperature.
- Can be used with any type of water.
- Boron and phosphate free.
- Very good biostability.

					AVAILABLE PACKAGING		
PRODUCT NAME	PH AT 5%	TEMPERATURE °C	CONCENTRATION %	MATERIALS	JERRYCAN 24 L	DRUM 192 L	
Safkleen 334	8.9	30 - 50	1 - 4 (Al and Zn) 5 - 15 (Ferrous)	All metals	110363	110362	



AQUEOUS CLEANER SAFKLEEN 334 F

APPLICATION

Water-based cleaner that can be used, either by spraying or by ultrasonic immersion, for the degreasing and the temporary passivation of ferrous metals and yellow alloys.

- Protection against oxidation.
- Easy to rinse.
- Fully organic.
- Boron and phosphate free.
- Very good biostability.
- Biodegradable.

					AVAILABLE PACKAGING		
PRODUCT NAME	PH AT 4%	TEMPERATURE °C	CONCENTRATION %	MATERIALS	JERRYCAN 24.5 L	DRUM 206 L	
Safkleen 334 F	8	50 - 70	1 - 8	All metals	110365	110364	



AQUEOUS CLEANER SAFKLEEN 421

Alkaline water-based cleaner used by spraying for degreasing and removal of oils, greases, stearates and crystalline phosphate layers on ferrous materials and steels.

- Adapted to the fasteners market.
- · Powerful degreasing.
- Easy to rinse.
- Boron free.
 Very good biostability.
- Biodegradable.

					AVAILABLE PACKAGING		
PRODUCT NAME	PH AT 1%	TEMPERATURE °C	CONCENTRATION %	MATERIALS	JERRYCAN 18.5 L	DRUM 155 L	
Safkleen 421	12.4	50 - 70	3 - 10	Ferrous	110374	110373	





RUST Preventatives

Formulated with the latest generation of anti-corrosion additives and deodorized solvents, MotulTech's MT Protect range meets the performance, durability and health & safety requirements of operators.

The MotulTech range of rust preventatives, formulated with barium-free additives, offers a range of high-performance solutions for industrial metal protection. All the solvent-based protection products of the range have, first and foremost, a water-repellent action. It enables the application of anti-corrosion compounds on a perfectly dry surface, the first step for an effective protection against corrosion. The choice of the product will then be made according to the duration of protection sought, the storage and transport conditions of the part, the drying speed of the rust preventative.



SHORT-TERM PROTECTION MT SOLV PROTECT

APPLICATION

Highly water repellent fluid for corrosion protection of metal parts or assemblies. Recommended for interoperation or short-term corrosion prevention of metallic parts or components.

ADVANTAGES

- Prevents corrosion of metal parts by hand contact.
- Repels water from part very quickly.
- Fast evaporation rate.
- Well adapted for interoperation protection.
- Without barium or hazardous components.
- Based on low odor raw materials.

				AVAILABLE PACKAGING			
PRODUCT NAME	FILM THICKNESS (MICROMETER)	FLASH POINT °C	EVAPORATION SPEED	JERRYCAN 20 L	DRUM 200 L	IBC 1000 L	
MT Solv Protect	0.5	> 70	Fast	105806	105807	-	



MEDIUM-TERM PROTECTION MT OIL PROTECT

APPLICATION

Oily fluid, water repellent, for short to medium-term protection of metal parts.

- Repels water from parts very quickly.
- Prevents corrosion of parts by hand contact.
- Good demulsification.
- \bullet Well suited to the interoperation protection.
- Without barium or hazardous components.
- · Based on low odour materials.

				AVAILABLE PACKAGING			
PRODUCT NAME	FILM THICKNESS (MICROMETER)	FLASH POINT °C	EVAPORATION SPEED	JERRYCAN 20 L	Drum 200 L		
MT Oil Protect	7	> 204	Moderate	105573	105574		



MEDIUM-TERM PROTECTION MT LIGHT OIL PROTECT

APPLICATION

Oily fluid, water repellent, for short to medium-term protection of metal parts.

ADVANTAGES

- Thin oily film allowing the control of protected parts.
- · Easily sprayable.
- Repels water from parts quickly.
- Prevents corrosion of parts by handling with bare hands.
- · Good desemulsification.
- Well suited to the interoperation protection.

				AVAILABLE PACKAGING				
PRODUCT NAME	FILM THICKNESS (MICROMETER)	FLASH POINT °C	VISCOSITY AT 40°C (CST)	JERRYCAN 20 L	DRUM 200 L			
MT Light Oil Protect	7	> 115	4.2	108751	108752			



LONG-TERM PROTECTION MT STORE PROTECT

APPLICATION

Waxy rust preventative fluid, for medium to long-term protection of metallic parts and assemblies stored indoor or outdoor under shelter.

ADVANTAGES

- Medium to long-term protection.
- Repels water from parts very quickly.
- Slow evaporation rate.
- Fast desemulsification.
- Without barium or hazardous components.
- · Based on low odour raw materials.

				AVAILABLE PACKAGING			
PRODUCT NAME	FILM THICKNESS (MICROMETER)	FLASH POINT °C	EVAPORATION SPEED	JERRYCAN 20 L	DRUM 200 L		
MT Store Protect	2	> 114	Moderate	105798	105799		



LONG-TERM PROTECTION MT SHIP PROTECT

APPLICATION

Waxy fluid, highly water repellent, for long-term protection in difficult conditions of metals parts and assemblies. Recommended for long-term protection of metal parts, for storage or shipping.

- Long-term protection in difficult conditions.
- Prevents corrosion of metal parts for storage or shipping.
- Repels water from parts very quickly.
- Fast evaporation rate.
- Fast desemulsification from water.
- · Without barium or hazardous components.

				AVAILABLE PACKAGING		
PRODUCT NAME	FILM THICKNESS (MICROMETER)	FLASH POINT °C	EVAPORATION SPEED	JERRYCAN 20 L	IBC 1000 L	
MT Ship Protect	4.5	> 74	Fast	105805	106671	



MAINTENANCE LUBRICANTS



GENERAL LUBRICATION - MAINTENANCE FLUIDS

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As for all pieces of industrial equipment, lubrication plays a key role in optimising performance and minimizing downtime. Furthermore today's equipment are more sophisticated and environmental regulations are more demanding. That is why MotulTech offers a complete line of complementary lubrication products which have all been thoroughly designed to satisfy all specific needs of modern industry. Each product is the result of a long collaboration with industrial specialists. We listen to their demands and our experts develop lubricants that helps to improve our customer's industrial equipment in terms of maximised performance, reduced operating costs and increased production efficiency.



HYDRAULIC FLUIDS

Our first-class hydraulic oils meet all demands towards a modern oil. Whether it is about high viscosity index, perfect wear protection properties, optimum protection against corrosion or biodegradability, you will always find the right lubricant in our wide range.



MINERAL RUBRIC HL

APPLICATION

Anti-corrosive and anti-oxidative hydraulic and circulating oil.

ADVANTAGES

- Excellent anti-wear, anti-oxidation and anti-corrosion properties.
- Excellent anti-foam properties.
- Very good stability against hydrolysis.
- High thermal stability.
- Higher system efficiency, less service down-time.
- Extended equipment's life.

PERFORMANCES

ISO 11158 category HL; ISO 6743-4 category HL DIN 51524 part 1, HL NF E 48603 HL

							AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 4x5 L	JERRYCAN 20 L	DRUM 208 L
Rubric AW 22	22	4.4	109	-28	212	108162	104628	108460

					AVAILABLE	PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	DRUM 208 L	IBC 1000 L
Rubric B 46	46	6.7	100	-33	218	108462	109668

							AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
Rubric EE 150	150	14.4	98	-15	198	104629	108465	107162



MINERAL RUBRIC HM

APPLICATION

Anti-wear, anti-corrosion and anti-oxidation, high performance hydraulic oil for hydraulic systems working under severe conditions.

ADVANTAGES

- · Less downtime, higher productivity.
- Excellent anti-wear quality.
- Excellent resistance to oxidation.
- · Excellent protection against corrosion.
- Excellent thermal and hydrolysis stability.
- · Excellent desemulsification and filterability.

PERFORMANCES

DENISON HF-0

ISO 11158 categories HM; ISO 6743-4 categories HM DIN 51524 part 2, HLP

NF E 48603 HM

						AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
Rubric HM 32	32	5.4	106	≤-24	≥210	108832	108838	108841
Rubric HM 46	46	6.9	110	≤-24	≥215	108794	108795	108835
Rubric HM 68	68	8.8	104	≤-21	≥225	108776	108789	108791
Rubric HM 100	100	11	94	-18	276	104269	101780	101781



MINERAL RUBRIC HLPD

APPLICATION

Hydraulic fluid based on mineral oil with detergent and dispersant qualities. Delivers reliable performance and ultimate cleanliness in applications contaminated by aqueous products such as metalworking fluids.

ADVANTAGES

- · Very good anti-wear properties.
- · Excellent oxidation resistance.
- Excellent protection against corrosion.
- Very good cleaning and dispersing power.
- · Zinc-free.
- Excellent thermal stability.
- Excellent filterability.

PERFORMANCES

DIN 51524 part 2 (HLP) Daimler Chrysler DBL 6721

Ortlinghaus test for wet running clutch-brake-units according to ON 9.2.19

							AVAILABLE PACKAGING				
Р	RODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L		
Ru	bric HLPD 32	32	5.7	118	-33	216	107307	107308	110356		
Ru	bric HLPD 46	46	7.2	115	-33	238	107309	107310	107333		
Ru	bric HLPD 68	68	9.1	111	-33	238	107311	107312	109522		



MINERAL RUBRIC LX

APPLICATION

Ash less (zinc-free) high performance hydraulic oil suitable for the lubrication of hydraulic systems working under severe conditions.

ADVANTAGE

- Excellent anti-wear properties.
- Excellent oxidation resistance.
- Excellent corrosion protection.
- Excellent thermal and hydrolysis stability.
- Excellent desemulsion and filterability.

PERFORMANCES

DENISON HF-0

ISO 11158 category HM; ISO 6743-4 category HM DIN 51524 part 2, HLP

NF E 48603 HM

		AVAILABLE PACKAGING						
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
Rubric LX 32	32	5.5	103	-15	182	104281	107801	_
Rubric LX 46	46	6.7	109	-30	228	104280	107802	101791
Rubric LX 68	68	8.3	91	-33	258	104276	101792	101793



HYDRAULIC CLEAN PACKAGE

MINERAL RUBRIC R-CLEAN

ADDITION

Cleaner designed for use in mineral based hydraulic oils. Helps removing varnish and sludge from the hydraulic system in preparation for the introduction of RUBRIC CLEAN. First part of a Hydraulic Clean Package consisting in the cleaner RUBRIC R-CLEAN and RUBRIC CLEAN hydraulic oils.

ADVANTAGES

- · Varnish build-up and sludge removing.
- Reduced equipment downtime when compared to manual cleaning.
- Compatible with mineral based lubricants.
- Reduced health and safety concerns in comparison to solvent based cleaners.
- · Compatible with all common seal materials.

	AVAILABLE PACKAGING
PRODUCT NAME	BOTTLE 5 L
Rubric R-Clean	104566



HYDRAULIC CLEAN PACKAGE

MINERAL RUBRIC CLEAN HM

APPLICATION

Premium zinc-free anti-wear hydraulic oil designed to prevent varnish from depositing on internal system components in hydraulic systems. Second part of a Hydraulic Clean Package.

ADVANTAGES

- Prevents formation of varnish and sludge deposits.
- Extended pump protection.
- · Lowers maintenance and downtime costs.
- Excellent wear, rust and corrosion protection.
- · Excellent oxidation and thermal stability.
- Excellent filtration properties.
- Maintains cycle times with clean equipment.

PERFORMANCES

Parker Denison HF-0

MAG IAS (ex Cincinnati Machine) P-68, P-69, P-70 DIN 51524 part 1 (HL), part 2 (HLP)

Eaton Brochure 03-401-2010

					AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
Rubric Clean HM 32	32	5.6	117	-33	230	106747	106748	_
Rubric Clean HM 46	46	6.7	103	-24	240	104484	104485	107163
Rubric Clean HM 68	68	9.3	110	-34	238	107017	107018	_



MINERAL RUBRIC HV

APPLICATION

Lubrication of hydraulic systems working under severe conditions and at low and high temperature.

ADVANTAGE

- Excellent anti-wear & anti-corrosion properties.
- Excellent oxidation resistance.
- Excellent desemulsion and filterability.
- Excellent thermal and hydrolysis stability.
- High viscosity index & very low pour point.

PERFORMANCES

DENISON HF-0 ISO 11158 categories HV; ISO 6743-4 categories HV DIN 51524 part 3, HVLP NF E 48603 HV

							AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L		
Rubric HV 22	22	4.7	140	-45	204	104286	101784	-		
Rubric HV 32	32	6.3	≥150	≤-36	≥200	108760	108870	108764		
Rubric HV 46	46	7.9	≥145	≤-36	≥210	108767	108761	108768		
Rubric HV 68	68	10.7	≥143	≤-30	≥210	108769	108796	108798		



SYNTHETIC RUBRIC BIO 46

APPLICATION

High performance hydraulic fluid based on synthetic esters with a high level of biodegradability (> 90% in 21 days).

Recommended for all hydraulic systems.

ADVANTAGES

- Excellent thermal stability.
- Excellent anti-wear performance and oxidation resistance.
- · Good filterability.
- Excellent desemulsion.
- · High viscosity index.

PERFORMANCES

European Ecolabel Blue Angel approval Bosch Rexroth RE 90221-01

					AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	Drum 50 kg	DRUM 190 KG
Rubric BIO 46	46	7.9	186	-36	310	104418	100435	100436



SYNTHETIC RUBRIC BIO 46 S

APPLICATION

High performance hydraulic fluid based on synthetic esters with a high level of biodegradability (> 90% in 21 days).

Recommended for all hydraulic systems.

ADVANTAGES

- Excellent thermal stability.
- Excellent anti-wear performance and oxidation resistance.
- Good filterability.
- Excellent desemulsion.
- High viscosity index.
- High temperature stable.
- · Behaves neutrally in conjunction with elastomers.

PF	RF(OR!	MA	NC	FS

European Ecolabel Blue Angel approval Bosch Rexroth RE 90221-01

						AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	DRUM 208 L	M	
Rubric BIO 46 S	46	7.9	146	-36	310	103108		

Co HOTUL

BIO

SYNTHETIC RUBRIC BIO SYNT 46

APPLICATION

Ester-based high performance biodegradable hydraulic fluid for all available hydraulic systems. High level of biodegradability (OECD 301B 90% after 28 days).

ADVANTAGES

- Year around use.
- Outstanding oxidation and thermal stability.
- Outstanding hydrolytic stability.
- Superior rust and corrosion protection.
- Anti-wear protection.
- Non-toxic and low odour.

PERFORMANCES

European Ecolabel Swedish Standard SS 15 54 34

						AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Rubric BIO Synt 46	43.2	8.8	189	-41	292	108248	108249	108250	



SYNTHETIC RUBRIC ARCTIC 26

APPLICATION

High performance hydraulic fluid with a very high viscosity index for all year use in hydraulic equipments operating over a wide temperature range.

ADVANTAGES

- Allows very good start up performance of hydraulic equipment at very low temperatures.
- · Good rust and corrosion protection.
- Very low pour point.
- $\bullet \ \ \hbox{Zinc-free anti-wear additives for exceptional equipment performance.} \\$
- · Excellent oxidation stability.
- Outstanding viscosity control over a wide temperature range.

PRODUCT NAME						AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Rubric Arctic 26	26.4	8.2	326	-56	242	108216	108215	108296	



SYNTHETIC RUBRIC HFC 40

APPLICATION

HFC fire-resistant hydraulic fluid for all areas where the risk of a fire hazard exists (steel industry, heat treatment shops...) and/or when a good biodegradability is important. Fulfills all requirements of the 7th Luxemburg Report.

ADVANTAGES

- Excellent fire resistance properties.
- · High lubricity and anti-wear characteristics.
- · Excellent corrosion protection.
- · Long term stability.

						AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	DRUM 208 L	IBC 1000 L	
Rubric HFC 40	38	9	>150	-48	none	104505	104516	



HFDU

SYNTHETIC RUBRIC HFDU 46 FM

APPLICATION

Fire-resistant, biodegradable high quality synthetic hydraulic fluid for all hydraulic systems, lubrication and circulating system where EP characteristics are not required and/or where there are potential risks of fire and/or water contamination. Fulfills all requirements of the 7th Luxemburg Report.

ADVANTAGES

- Excellent resistance to combustion.
- Readily biodegradable.
- Zinc-free.
- Excellent demulsibility.
- Very good anti-rust and anti-corrosive properties.
- Excellent oxidation stability.

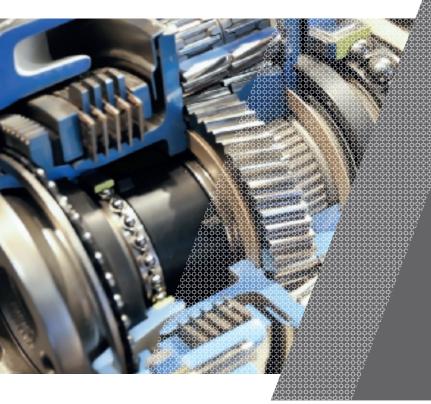
PERFORMANCES

ISO-HFD-U; ISO 6743/4 HM-HV; ISO 15 380, part 4 VDMA 24568 DIN 51524, part 3 Vickers M-2952-S; I-286-S

FM approved

					AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	FLASH POINT °C	FIRE POINT °C	DRUM 200 L	IBC 1000 L	
Rubric HFDU 46 FM	46	185	300	348	109618	109608	





MULTIFUNCTIONAL OILS

All-in-one lubricants for slideways, hydraulics and gears which was especially developed for machine owners that like to keep their lubricants stock easy to manage.



MINERAL RUBRIC RU

APPLICATION

Premium multifunctional oil for machine tools. Suitable for slideways, hydraulic and centralised lubrication systems.

ADVANTAGES

- High demulsifiability with water soluble metalworking fluids.
- Corrosion resistant.
- Compatible with plastic coated ways (SKC).
- Low friction coefficient.
- Avoids Stick-Slip.
- Excellent adhesiveness.
- Anti-wear and extreme-pressure.
- Zinc-free.

PERFORMANCES

SLIDEWAYS

ISO 11158 category HG; 6 743-4 category HG; 6743-13 category G CINCINNATI MILACRON P-47, P-50, P-53

CINOINNATTWILLACKONT -47,1-30,1-33

HYDRAULICS

ISO 11158 category HM ISO 6743-4 category HG ISO 6743-13 category G DIN 51524 part 2, HLP

GEARS

DIN 51517 part 3, CLP AGMA 9005 - E02

						AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Rubric RU 32	32	5.6	110	-36	230	104232	108486	110827	
Rubric RU 46	46	6.9	106	-33	240	104249	108487	-	





GEAR OILS

Oils specifically made for transmissions, transfer cases and differentials in all types of industrial machinery. Our large selection of mineral and synthetic transmission lubricants has been developed for a wide variety of gear types. They meet all requirements - from standard applications to the most difficult operating conditions.



MINERAL SUPRACO MPL

APPLICATION

Extreme-pressure lubricant for all types of highly stressed gear drives. Lubrication of gear drives, reducers (except hypoid gears), worm gears, bearings and heavy loaded parts of machinery.

ADVANTAGES

- Very high extreme-pressure and anti-wear properties.
- Very high resistance to oxidation.
- Non-corrosive lubricant for non-ferrous metals, particularly bronze alloys.
- Excellent water demulsibility.
- Zinc-free.

PERFORMANCES

ISO 6743-6 and ISO 12925-1, catégorie CKC, CKD DIN 51517 Part 3: 2004-01 AIST 224 AGMA 9005-E02 David Brown S1.53.101(E)

David Brown S1.53.101(E) Strong FAG FE-8 performance

							AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L		
Supraco MPL 68	68	8.8	101	-24	242	108172	108173	_		
Supraco MPL 100	104	11.9	103	-24	242	104268	108470	_		
Supraco MPL 150	160	15.6	99	-21	242	104250	108472	108519		
Supraco MPL 220	218	18.8	96	-18	238	104236	108473	108474		
Supraco MPL 320	339	26.4	101	-15	236	104252	108476	_		
Supraco MPL 460	475	31.9	99	-12	234	104354	108477	107803		
Supraco MPL 680	641	35.2	87	-9	234	104323	108478	_		



SYNTHETIC GEAR SY

APPLICATION

High performance synthetic oil with extremepressure properties for the lubrication of reduction gears operating under heavy loads and high temperatures.

ADVANTAGES

- Excellent extreme-pressure and anti-wear properties.
- Excellent oxidation stability.
- Excellent rust and corrosion protection.
- Very high demulsibility with water.
- High viscosity index.

PERFORMANCES

ISO 6743-6 and ISO 12925-1, category CKC, CKD DIN 51517 Part 3: 2004-01 AIST 224

AGMA 9005-E02

David Brown S1.53.101(E)

Strong FAG FE-8 performance

						AVAILABLE	PACKAGING
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L
Gear SY 68	66	10.6	150	-30	222	104320	100517
Gear SY 100	100	14.5	149	-24	240	108300	108301
Gear SY 150	150	19.7	151	-51	234	104322	108479
Gear SY 220	220	28.3	159	-36	224	104321	108480
Gear SY 320	324	38.2	168	-24	232	104294	108481
Gear SY 460	458	50.5	172	-42	226	104295	108515



SYNTHETIC SUPRA GEAR GL

APPLICATION

Long-life or permanent lubrication of worm gear reduction drives, or gearboxes operating in a wide temperature range. Lubrication of all types of machine exposed to high temperatures or heavy loads in an oil circulation system. Not miscible with mineral or other synthetic lubricants.

ADVANTAGES

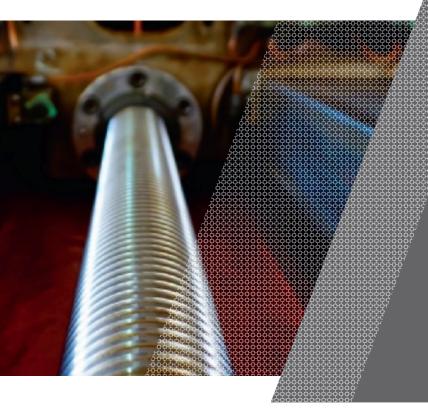
- Outstanding load carrying properties.
- Excellent thermal stability.
- Excellent corrosion protection (ASTM D665, procedure B pass).
- Outstanding demulsibility characteristics.
- Allows thermally stable operation at temperatures in excess of 200 °C.
- Free of chlorine, sulphur and metal-based additives including lead.

PERFORMANCES

DIN 51517 Part 3, CLP David Brown Type G

PRODUCT NAME		VISCOSITY AT 100°C (CST)	VI	POUR POINT °C		AVAILABLE PACKAGING			
	VISCOSITY AT 40°C (CST)				FLASH POINT °C	JERRYCAN 20 L	DRUM		
Supra Gear GL 150	150	25	195	-30	191	-	206 L - 106314		
Supra Gear GL 220	237	32	177	-30	231	106315	205 L - 106316		
Supra Gear GL 320	325	45	196	-30	225	106319	207 L - 106320		





SLIDEWAY OILS

Premium quality lubricants specially designed for the lubrication of high production machine tools. Our slideway lubricants guarantee high load carrying capacity, which significantly reduces the wear on the guides as well as excellent lubricity to prevent stick-slip phenomena. Due to the outstanding demulsifying ability and compatibility with our soluble cutting fluids they are the first choice for machine owners who prefer to get all lubricants from only one source.



MINERAL SLID FILM

APPLICATION

High performances lubricating oil for slideways, hydraulic and centralised lubrication systems.

ADVANTAGES

- High demulsifiability with water soluble metalworking fluids.
- Corrosion resistant.
- Compatible with plastic coated ways (SKC).
- · Low friction coefficient.
- · Avoids Stick-Slip.
- Excellent adhesiveness.
- Anti-wear and extreme-pressure.
- · Zinc-free.

PERFORMANCES

SLIDEWAYS

ISO 11158 category HG; 6743-4 category HG; 6743-13 category G CINCINNATI MILACRON P-47 and P-50.

HYDRAULICS

ISO 11158 category HM; 6743-4 category HM DIN 51524 part 2, HLP

GEARS

DIN 51517 part 3 AGMA 9005 - E02 US STEEL 224

						AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Slid Film 68	68	9.2	105	-24	244	104231	108758	108484	
Slid Film 100	100	11.4	100	-18	256	104277	107190	-	
Slid Film 150	150	14.6	96	-27	242	104279	107189	-	
Slid Film 220	220	18.7	97	-18	240	104278	108759	108485	



MINERAL SUPRA SLIDE

APPLICATION

High performance oil for the lubrication of machine tool slideways.

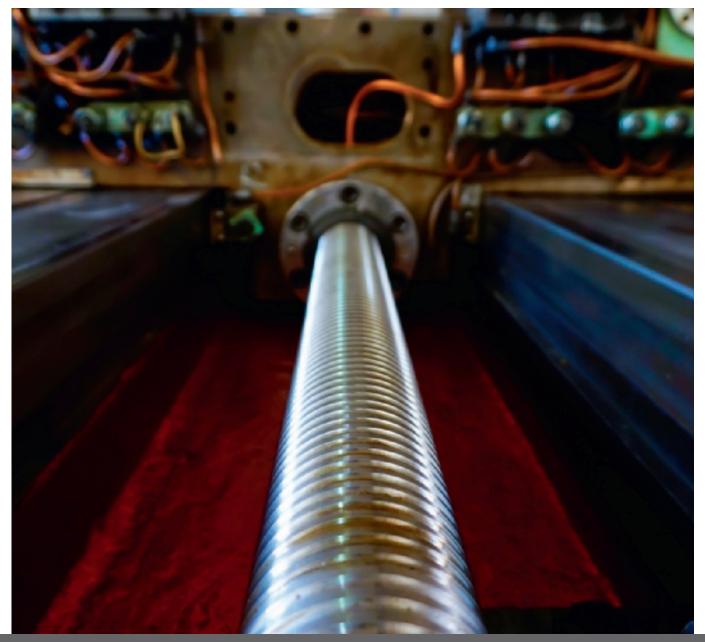
ADVANTAGES

- Excellent compatibility with aqueous metalworking fluids.
- Exceptional demulsibility properties, particularly with MotulTech soluble fluids.
- Excellent lubricity and load carrying performance.
- Avoids Stick-Slip.
- Non-corrosive to ferrous and non-ferrous alloys.
- Anti-wear and extreme-pressure performance.

PERFORMANCES

Cincinnati Lamb P-47 / P-50 SH/T0361-94 Chinese ntl. specification DIN 51524-2 HLP; DIN 51517-3 CLP

						AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Supra Slide 68	70	8.9	100	-15	248	104513	104515	105863	
Supra Slide 220	219	19	96	-12	286	104514	104517	-	





SPINDLE OILS

High quality oils specifically made for high-speed spindles bearings in all types of industrial machinery. These lubricants do not only prevent machine failures due to premature wear, but also cool and protect the spindle against corrosion.



MINERAL SPEED A

APPLICATION

Lubrication of high-speed spindles bearings, airline oilers, hydraulic systems requiring low-viscosity lubricants in grinders and other machine tools.

ADVANTAGES

- Reduced sludge, varnish and deposit formation.
- Corrosion resistance.
- Excellent anti-wear protection.
- Enhanced thermal and oxidative stability.
- Zinc-free.

PERFORMANCES

ISO TR 3498: L-FD and L-HM ISO 6743-2: L-FD

						AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Speed AA 2	2.1	1	148	-54	108	104419	_	_	
Speed A 5	5.1	1.6	na	-46	140	108222	_	_	
Speed A 10	10	2.7	112	-48	146	104420	108482	108483	





CHAIN OILS

A complete range for maximisation of service life of a chain drive or conveyor. MotulTech's high-performance chain and conveyor lubricants are suitable for many difficult operating conditions such as high temperature, stable, wet or corrosive environments. These products are based on synthetic base oils. They have extremely low volatility and will not form carbon deposits.



SYNTHETIC SUPRA CHAIN HT

APPLICATION

High temperature chain oil specifically adapted to the lubrication of chains and bearings of installations with a continuous temperature between 150 and 250 $^{\circ}$ C.

- Very good oxidation stability.
- Excellent adhesion and penetration properties.
- Very low evaporation rate and smoke formation.
- · Good corrosion protection.
- Excellent lubricity and wear protection.
- High temperature resistance.

						AVAILABLE		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L
Supra Chain 120 HT	101	12	105	-48	278	110288	110289	_
Supra Chain 250 HT	250	19	80	-33	280	110290	110291	110831





COMPRESSOR OILS

A range of special lubricants to lubricate both the working parts and the pressurized spaces in a compressor. MotulTech offers high-performance products for almost any piston and screw compressors, from small single-stage units to multi-stage versions with very high output. Depending on the application, you can find products on a mineral or synthetic basis, from 3,000 to 10,000 hrs hrs service life.



MINERAL VIS

APPLICATION

Lubrication of screw air compressors as well as vacuum pumps.

ADVANTAGES

- Excellent anti-wear performances.
- Excellent corrosion protection.
- Excellent oxidation resistance and thermal stability at high temperatures.
- · Low ash and carbon formation.
- · Zinc-free.

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DIN 51506 - VBL, VCL, VDL ISO / DP 6521 (DAA, DAB, DAH, DAG)

						AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L	
Vis 32	32	5.5	108	-15	226	104282	108467	_	
Vis 46	45	7	110	-39	230	104267	108468	109785	



MINERAL ALTERNA

APPLICATION

Lubrication of reciprocating compressors as well as vacuum pumps.

ADVANTAGES

- Excellent anti-wear performances.
- Excellent corrosion protection.
- Excellent oxidation resistance and thermal stability at high temperatures.
- Low ash and carbon formation.
- · Zinc-free.

PERFORMANCES

DIN 51506 - VBL, VCL, VDL ISO / DP 6521 (DAA, DAB, DAH, DAG)

PRODUCT NAME		VISCOSITY AT 100°C (CST)	VI	POUR POINT °C		AVAILABLE PACKAGING			
	VISCOSITY AT 40°C (CST)				FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L		
Alterna 68	68	9.1	109	-15	230	107799	107800		
Alterna 100	101	11.7	105	-15	230	104251	108469		
Alterna 150	150	15.4	103	-15	232	104283	-		



SYNTHETIC BAR SY

APPLICATION

High performance synthetic lubricants for rotary and reciprocating compressors.

ADVANTAGES

- $\bullet \ {\sf Excellent} \ {\sf wear} \ {\sf and} \ {\sf corrosion} \ {\sf protection}.$
- Very long drain intervals for reduced compressor maintenance.
- Reduces varnish and lacquer deposits.
- High viscosity index.
- Very low volatility for lower oil consumption.
- · High oxidation resistance.
- Excellent separation from air and water.

PERFORMANCES

DIN 51506 - VCL, VDL

						AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L		
Bar SY 46	46	7.5	128	-36	238	104688	104707		
Bar SY 68	70	10	124	-33	250	104690	104761		
Bar SY 100	101	12.5	117	-27	252	104691	104689		



SYNTHETIC SUPRABAR SY

APPLICATION

High performance lubricant for modern reciprocating or rotary air compressors operating under extreme climatic conditions, harsh environments and other severe operating environments and requiring extended oil change intervals.

ADVANTAGES

- Excellent anti-wear performance.
- High viscosity index, can be used in a large temperature range.
- Very severe operating conditions.
- Optimum efficiency.
- Excellent protection against corrosion, varnish and lacquer deposits.
- Increased draining intervals, up to 10,000 hrs for reduced maintenance costs.

PERFORMANCES

DIN 51506 (VBL, VCL, VDL) ISO / DP 6521 (DAA, DAB, DAH, DAG)

		VISCOSITY AT 100°C (CST)	VI			AVAILABLE	PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)			POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	
Suprabar SY 32	32	6.2	146	-42	260	110229	110230	
Suprabar SY 46	46	7.7	148	-36	272	110175	110176	
Suprabar SY 68	68	11.1	155	-42	280	110177	110231	





FOOD GRADE OILS

The MotulTech's Food Grade oils range is especially suitable for the food industry. Typical applications are mechanisms in machines for meat processing, production of dairy and bakery products, beverages, the processing of sugar and cereals, as well as the production of pharmaceutical products, animal feed and food packaging.



HYDRAULIC MEDICINAL WHITE OIL

HYDRAULIC FG

APPLICATION

Lubrication of hydraulic systems, in the food and beverage, cosmetic and pharmaceutical industries.

Made from elements that are part of the Food and Drug Administration. NSF $\rm H1$ certified.

ADVANTAGES

- Oxidation stability.
- Extreme-pressure and anti-wear performance.
- Excellent corrosion protection.
- Excellent anti-foam properties.
- · Excellent water demulsibility.

							AVAILABLE PACKAGING				
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 215 L	IBC 1000 L			
Hydraulic FG 32	32	7	>140	-10	>190	-	_	106609			
Hydraulic FG 46	46	9	>140	-10	>190	108463	108464	109097			
Hydraulic FG 100	100	15	155	-10	>190	102018	_	_			



HYDRAULIC

SYNTHETIC HYDRAULIC FG-F

APPLICATION

Lubrication of plain bearings, conveyor chains, hydraulic circuits particularly at low temperatures. Lubricant of choice in cold industries. NSF H1 certified.

- Reinforced anti-wear and anti-corrosion performance.
- Excellent anti-foam properties.
- Excellent water demulsibility.
- High viscosity index.
- Low pour point.

						AVAILABLE	AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	Drum 215 L			
Hydraulic FG-F 32	32	6	130	-50	240	104449	104451			



SYNTHETIC HYDRAULIC FG-V

APPLICATION

Lubrication of plain bearings, conveyor chains, hydraulic circuits particularly at low temperatures. Lubricant of choice in cold industries. NSF H1 certified.

ADVANTAGES

- Reinforced anti-wear and anti-corrosion performance.
- · Excellent anti-foam properties.
- Excellent water demulsibility.
- · High viscosity index.
- Low pour point.

						AVAILABLE PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	DRUM 215 L	A
Hydraulic FG-V 46	46	8.5	130	-50	250	108505	



GEAR SEMI-SYNTHETIC GEAR FG

APPLICATION

Lubrication of plain bearings and loaded enclosed gears in the food and beverage industry.

Made from elements that are part of the Food and Drug Administration list. NSF H1 certified.

ADVANTAGES

- Oxidation stability.
- Extreme-pressure and anti-wear performance.
- Excellent corrosion protection.
- · High viscosity index.
- Excellent anti-foam properties.
- · Low pour point.

						AVAILABLE	PACKAGING
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 215 L
Gear FG 150	150	20	>140	-18	>220	102098	108507
Gear FG 220	220	24	>140	-22	>220	108502	108503
Gear FG 320	320	40	>140	-25	>220	102132	108504
Gear FG 460	460	55	>140	-25	>220	102520	108508
Gear FG 680	680	65	>140	-25	>220	106184	_



COMPRESSOR SYNTHETIC COMPRESSOR FG

APPLICATION

Lubrication of ${\rm CO}_2$, air and inert gas compressors in the food and beverage industry. Made from elements that are part of the Food and Drug Administration list. NSF H1 certified.

- Low volatility.
- High extreme-pressure and anti-wear performance.
- Excellent corrosion protection.
- Excellent demulsibility.
- Low residue tendency.
- Excellent anti-foam properties.
- Excellent deaeration properties.

						AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 215 L		
Compressor FG 46	46	8.5	>130	<-30	>240	_	108506		
Compressor FG 68	68	11.7	>130	<-30	>240	102131	-		

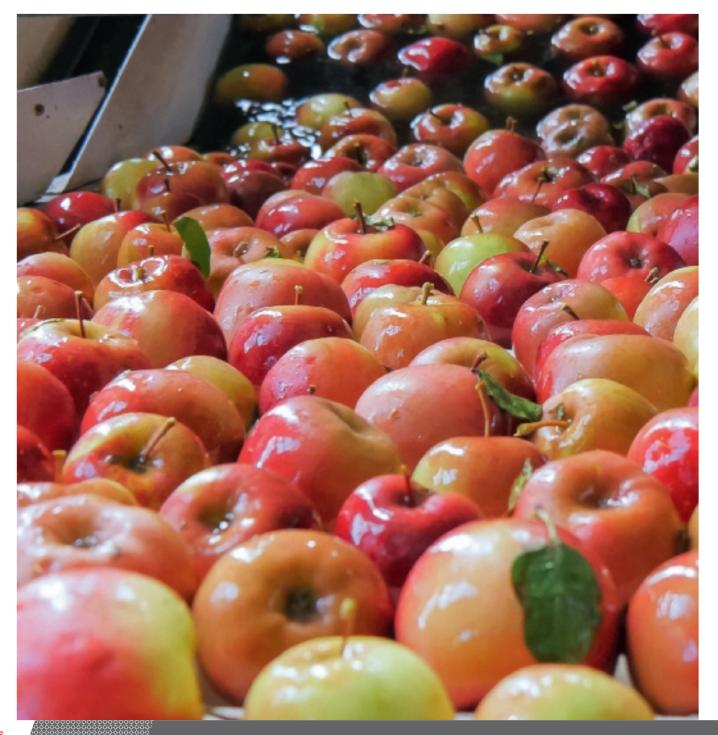


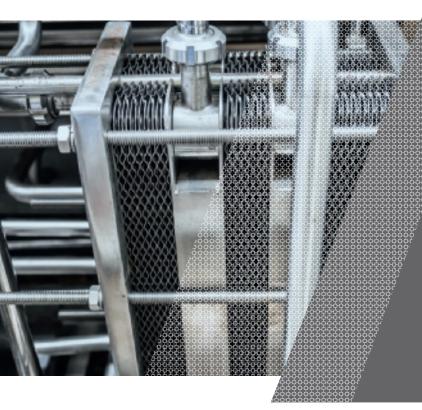
Lubrication of drive and transport chains in the food industry and equipment manufacturing food packaging industry.

Made from elements that are part of the Food and Drug Administration list. NSF H1 certified.

- High resistance to water.
- Excellent oxidation stability.
- High anti-wear performances.
- Excellent corrosion protection.
 Very good adherence.
 No coking deposits.

						AVAILABLE	PACKAGING	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 215 L	
Chain FG 320	320	34.1	150	-45	280	104486	104487	





TEAT TRANSFER OILS

A range of temperature and oxidation-resistant mineral and synthetic fluids, low viscous and chemically inert, with high thermal potential for cooling systems. These oils guarantee best corrosion protection and improved oxidation stability in enclosed heating circuits.



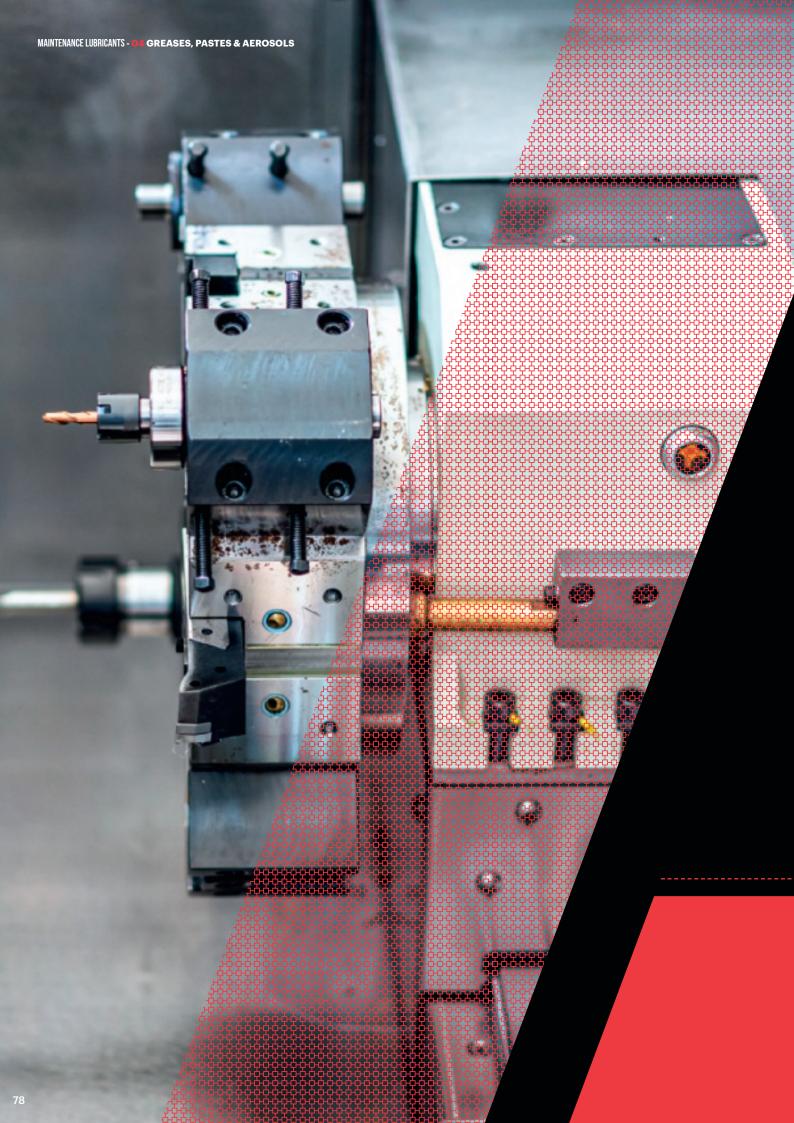
MINERAL SUPRACAL

APPLICATION

Highly refined mineral oil with paraffinic tendencies for heat transfer and thermal controls operating at temperatures up to 280°C. Can be used for dynamic circulation as well as static applications.

- Perfect stability at high temperatures.
- High resistance to oxidation.
- Excellent anti-rust, anti-corrosion and anti-foam properties.
- Low viscosity for excellent thermodynamic characteristics.
- Very low vapour pressure.
- Non-toxic, zinc-free.

							AVAILABLE PACKAGING			
PRODUCT NAME	VISCOSITY AT 40°C (CST)	VISCOSITY AT 100°C (CST)	VI	POUR POINT °C	FLASH POINT °C	JERRYCAN 20 L	DRUM 208 L	IBC 1000 L		
Supracal 22	22	4.4	110	-36	212	104497	104504	-		
Supracal 32	30.4	5.3	104	-21	222	104500	104503	104501		
Supracal 105	101.5	11.3	97	-17	272	104496	109786	104502		



PART 2

MAINTENANCE LUBRICANTS

GREASES, PASTES & AEROSOLS

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Capitalizing on its expertise to meet the constant demand for improved mechanical performance, Motul has developed an high performance range of greases which meets and exceeds the standards demanded by industry OEMs and our customers. This comprehensive range of greases can be used in numerous automotive, HD and industrial applications from general purpose to more specialized high & low temperature, or food grades. These greases will provide performance, reliability and protection to all equipment and vehicles, in all conditions, day after day.



GENERAL PURPOSE GREASES

Today's production facilities have a variety of grease-lubricated equipment, varying significantly in speed and load, and operating in wet or dusty environments. To maximize grease lubrication effectiveness, minimize cost and minimize risk of application-induced failure, Motul offers greases that cover a variety of applications. These greases range from slow to high speeds and from low to high loads. Single products to meet a multitude of requirements.



CALCIUM / CALCIUM EP GREASES

MINERAL

IRIX C 120-2

(formerly GRAISSE 113)

APPLICATION

Multi-purpose grease for machines working under mild loads and temperatures. Suitable for bearings and plain bearings, slideways, sliding blocks, lubrication of various machine movements. Also intended for the temporary protection of metal parts and the protection of spray booths.

ADVANTAGES

- Insoluble in cold or tempered water.
- Very easy to inject.
- · Good anti-corrosion performances.
- Remains stable at work and when temperature changes.
- · Very adhesive to metal surfaces.

CLASSIFICATION

ISO 12924: L-XCCIB2 DIN 51502: KP2G-30

								AVAILABLE	PACKAGING		
	BASE OIL VISCOSITY			TEMPERATURE	DROP POINT	4-BALL			Pail 19 kg	D RUM 50 KG	D RUM 180 кG
PRODUCT NAME	AT 40°C (CST)	THICKENER	NLGI GRADE	RANGE (°C)	(°C)	WELD LOAD (KG)	COLOUR	CART.			
Irix C 120-2	120	Calcium	2	-30 to 110 (max 120°C)	> 140	280	Amber	108243	108244	108245	106780



CALCIUM / CALCIUM EP GREASES

MINERAL

IRIX C 310-2

ADDITION

Calcium thickened multi-purpose extreme-pressure grease based on mineral oil. Recommended for lubrication of bearings, bushings and plain bearings at low to medium speed, medium temperatures and high loads in wet environments. Mainly for agricultural machinery, heavy-duty and automotive applications. This grease is compatible with multi-purpose greases based on lithium and lithium/calcium.

ADVANTAGES

- Good protection against corrosion.
- Good adhesiveness.
- Good resistance to shock loads.
- Good water resistance.

CLASSIFICATION

ISO 12924: L-XCCHB2 DIN 51502: KP2G-30

									AVAILABLE PACKAGING		
PRODI	UCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 KG CART.	Drum 50 kg	Drum 180 кg
Irix (C 310-2	310	Calcium	2	-30 to 120 (max 130°C)	>140	320	Green	110411	110412	110413



CALCIUM / CALCIUM EP GREASES

MINERAL

IRIX C 1370-0

(formerly IRIX CSM 1370)

APPLICATION

Semi-fluid grease with corrosion inhibitors and extreme-pressure/ anti-wear additives. Suitable for the lubrication of heavily loaded bearings in wet and corrosive environments. Ideal for chassis or marine applications and as an universal grease for forestry, agricultural and construction vehicles. Easily pumpable even at low temperature in most high pressure centralized lubrication systems even with a high base oil viscosity.

ADVANTAGES

- · Excellent adhesion.
- Excellent water resistance.
- · Very good (shock) load carrying capacity.
- · Good corrosion protection, perfectly suited for wet and corrosive environments.
- Excellent at low temperature for extra good winter performance.

CLASSIFICATION

ISO 12924: L-XD(F)CHBO DIN 51502: KPOK-40

								A۱	/AILABLE PACKAGI	NG
	BASE OIL			TEMPERATURE	DROP POINT	4-BALL WELD		Pail 19 kg	D RUM 50 кG	D RUM 180 кG
PRODUCT NAME	VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	RANGE (°C)	(°C)	LOAD (KG)	COLOUR			
Irix C 1370-0	1370	Calcium	0	-40 to 120 (max 130 °C)	>120	300	Yellow	108246	109096	108247



LITHIUM EP GREASES **MINERAL**

IRIX L 50-00

(formerly IRIX LSM 1500)

APPLICATION

Multi-purpose, extreme-pressure grease formulated from premium mineral base oils and a lithium thickener. Can be used to lubricate bearings, gears and all mechanical units operating under medium loads, especially enclosed gears and bearings in poorly sealed gearcases. Also perfectly suitable for low pressure centralized systems.

- Excellent protection against corrosion.
- · Excellent extreme-pressure performance.
- · Excellent wear protection.
- Very good adhesion.
- · Very good stability in service and storage.
- Insoluble in water.

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ISO 12924: L-XCCIB00 DIN 51502: KP00K-30

								A۱	AILABLE PACKAGI	NG
DDODUOT NAME	BASE OIL	THOUSENED	NII OLODADE	TEMPERATURE	DROP POINT	4-BALL WELD	0010110	4 x 5 кв	PAIL 19 KG	Drum 50 kg
PRODUCT NAME	VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	RANGE (°C)	(°C)	LOAD (KG)	COLOUR		8	
Irix L 50-00	60	Lithium	00	-30 to 120	>160	250	Amber	106788	106874	106875



LITHIUM EP GREASES

MINERAL **IRIX L 80-0**

(formerly IRIX LSM 150)

Multi-purpose, extreme-pressure grease formulated from premium mineral base oils and a lithium thickener. Can be used to lubricate bearings, gears and all mechanical units operating under medium loads. NLGI grade 0: reducers, centralized greasing, gears in crankcases, various parts working in a cold atmosphere, all soft extreme-pressure grease applications.

ADVANTAGES

- Excellent protection against corrosion.
- Excellent extreme-pressure performance.
- · Excellent wear protection.
- Very good adhesion.
- · Very good stability in service and storage.
- · Insoluble in water.

CLASSIFICATION

ISO 12924: I-XCCIBO DIN 51502: KP0K-30

								AV	/AILABLE PACKAGI	NG
	BASE OIL			TEMPERATURE	DROP POINT	4-BALL WELD		4 x 5 кв	PAIL 19 KG	Drum 50 kg
PRODUCT NAME	VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	RANGE (°C)	(°C)	LOAD (KG)	COLOUR			
Irix L 80-0	65	Lithium	0	-30 to 120	>160	250	Amber	106785	106871	106872



LITHIUM EP GREASES

MINERAL IRIX L 130-1

(formerly IRIX LSM 151)

APPLICATION

Multi-purpose, extreme-pressure grease formulated from premium mineral base oils and a lithium thickener. Can be used to lubricate bearings, gears and all mechanical units operating under high loads. NLGI grade 1: centralized greasing with high pressure.

ADVANTAGES

- Excellent protection against corrosion.
- Excellent extreme-pressure performance.
- Excellent wear protection.
- · Very good adhesion.
- Very good stability in service and storage.
- · Insoluble in water.

CLASSIFICATION

ISO 12924: L-XBCIB1 DIN 51502: KP1K-20

									AVAIL	ABLE PACKAGI	NG	
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg CART.	12 x 1 кG	4 x 5 KG	DRUM 50 KG	DRUM 180 KG
Irix L 130-1	130	Lithium	1	-20 to 130	>180	250	Amber	106789	110424	106781	106876	106784



LITHIUM EP GREASES

MINERAL

IRIX L 130-2

(formerly IRIX LSM 152)

APPLICATION

Multi-purpose, extreme-pressure grease formulated from premium mineral base oils and a lithium thickener. Can be used to lubricate bearings, gears and all mechanical units operating under medium loads. NLGI grade 2: suitable for a wide range of general-purpose lubrication applications ranging from bearings to cables, chains and other linkages. Also suitable as a multi-purpose chassis, pin and bushing grease.

ADVANTAGES

- Excellent protection against corrosion.
- Excellent extreme-pressure performance.
- Excellent wear protection.
- Very good adhesion.
- · Very good stability in service and storage.
- Insoluble in water.

CLASSIFICATION

ISO 12924: L-XBCHB2 DIN 51502: KP2K-20

										AVAILABLE PA	CKAGING		
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg CART.	12 x 1 кG	4 x 5 кG	PAIL 19 KG	DRUM 50 KG	DRUM 180 KG
Irix L 130-2	130	Lithium	2	-20 to 120	>180	315	Amber	104717	110425	106840	106878	106879	106882



LITHIUM EP GREASES

MINERAL IRIX L 130-3

(formerly IRIX LSM 153)

APPLICATION

Multi-purpose, extreme-pressure grease formulated from premium mineral base oils and a lithium thickener. Can be used to lubricate bearings with vertical shaft, gears and all mechanical units operating under high loads.

NLGI grade 3: truck hubs, very loaded sleeves.

ADVANTAGES

- Excellent protection against corrosion.
- Excellent extreme-pressure performance.
- Excellent wear protection.
- Very good adhesion.
- Very good stability in service and storage.
- Insoluble in water.

CLASSIFICATION

ISO 12924: L-XBCIB3 DIN 51502: KP3K-20

								AV	AILABLE PACKAGI	NG
	BASE OIL			TEMPERATURE	DROP POINT	4-BALL WELD		24 x 0.4 kg	12 х 1 кс	D RUM 50 кG
PRODUCT NAME	VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	RANGE (°C)	(°C)	LOAD (KG)	COLOUR	CART.		
Irix L 130-3	130	Lithium	3	-20 to 130	>190	285	Amber	106783	110426	106842



LITHIUM EP GREASES

MINERAL

IRIX L 150-2 MO

(formerly IRIX LSM 112 MO, MOLY GREASE)

APPLICATION

Lithium thickened lubricating grease based on mineral oil, antioxidants, corrosion inhibitors, extreme-pressure / anti-wear additives and MoS2. Suitable for general industrial applications such as lubrication of gears, rolling contact bearings, plain bearings, splined shafts, etc. under heavy conditions (load, shock, presence of water).

ADVANTAGES

- Good mechanical stability.
- High load carrying capacity.
- Good corrosion protection.

CLASSIFICATION

ISO 12924: L-XBCHB2 DIN 51502: KPF2K-30

									А	VAILABLE PAC	KAGING		
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C	THICKENER	NLGI GRADE	TEMPERATURE	DROP	4-BALL WELD LOAD	COLOUR	24 x 0.4 kg Cart.	24 x 0.4 kg LS Cart.	12 x 1 кG	4 х 5 кв	D RUM 50 кG	Drum 180 кg
	(CST)		GRADE	RANGE (°C)	POINT (°C)	(KG)							
Irix L 150-2 MO	150	Lithium	2	-30 to 120 (max 130°C)	>185	>325	Black	106893	108656	110474	106895	108659	108660





HGH & LOW EMPERATURE GREASES

Suitable greases with good sealing properties are essential, especially when it comes to the lubrication of components, that are exposed to high or low temperatures and extreme environmental conditions such as humidity, pollution. The selection of this specific grease must include consideration of oil type and viscosity, oil viscosity index, thickener type...



LITHIUM COMPLEX GREASES

MINERAL

IRIX EVO LX 200-2

(formerly IRIX HP-LXM 202)

APPLICATION

Heavy-duty grease specifically developed for the long-term lubrication of all mechanisms subjected to very harsh working conditions. Perfectly suited for the lubrication of plain and antifriction bearings, small reduction gears, joints and other mechanisms subjected to high temperatures and loads including car and truck wheel bearings.

ADVANTAGES

- Excellent wear resistant
- and extreme-pressure properties.

 Very good resistance to water.
- Excellent adhesiveness.
- Resistance to corrosion.

CLASSIFICATION

ISO 12924: L-XBDHB2 DIN 51502: KPX2N-20

									AVAIL	ABLE PACKAGI	NG	
PRODUCT NAME	BASE OIL VISCOSITY	THICKENER	NLGI GRADE	TEMPERATURE	DROP POINT	4-BALL WELD LOAD	COLOUR	CART.	12 х 1 кс	PAIL 19 KG	DRUM 50 KG	Drum 180 кg
TROBOOT NAME	AT 40°C (CST)	MORENER	NEOFORABE	RANGE (°C)	(°C)	(KG)	COLOGR					
Irix EVO LX 200-2	220	Lithium Complex	2	-20 to 150 (max 160°C)	>240	400	Green	106790	110427	106869	106870	110435



LITHIUM COMPLEX GREASES

SYNTHETIC IRIX INO LX 40-2

(formerly IRIX HP-PLC 42)

APPLICATION

Universal grease for wide range of temperature applications particularly at high speed and low temperature and where a lubricant with low frictional resistance even at low temperatures is required.

ADVANTAGES

- Excellent high and low temperature performance.
- Very good mechanical stability.
- Good corrosion protection.
- Suitable for high speed applications.
- Very high load carrying capacity and excellent wear protection.

CLASSIFICATION

ISO 12924: L-XEDIB2 DIN 51502: KPHC2N-55

								AVAILABLE	PACKAGING
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg Cart.	DRUM 50 KG
Irix INO LX 40-2	44	Lithium Complex	2	-55 to 140 (max 180°C)	>260	>380	Beige	108102	110436



APPLICATION

Universal grease recommended for higher speed applications such as electric motors, where reduced friction, low wear and long service life are required.

ADVANTAGES

- Excellent high and low temperature performance.
- · Very good mechanical stability.
- · Good corrosion protection.
- Suitable for high speed applications.
- Very high load carrying capacity and excellent wear protection.

CLASSIFICATION

ISO 12924: L-XD(F)DIB2 DIN 51502: KPHC2N-40

								Α\	/AILABLE PACKAGI	NG
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg Cart.		DRUM 180 KG
Irix INO LX 100-2	100	Lithium Complex	2	-40 to 150 (max 220°C)	>260	>360	Beige	110503	110504	110505



SYNTHETIC IRIX INO LX 220-2

APPLICATION

Suitable for both industrial and automotive applications. The product's all-round properties and wide temperature range make it the primary choice for various types of bearing applications including in high and low temperature conditions.

ADVANTAGES

- Excellent high and low temperature performance.
- · Very good mechanical stability.
- Good corrosion protection.
- Suitable for high speed applications.
- Very high load carrying capacity and excellent wear protection.

CLASSIFICATION

ISO 12924: L-XD(F)DIB2 DIN 51502: KPHC2N-40

								A ^x	/AILABLE PACKAGI	NG
PRODUCT NA	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 KG CART.	DRUM 50 KG	DRUM 180 KG
Irix INO L 220-2	220	Lithium Complex	2	-40 to 150 (max 220°C)	>260	>360	Beige	110398	110399	110400



LITHIUM COMPLEX GREASES

SYNTHETIC IRIX INO LX 460-2

APPLICATION

Suitable for heavily loaded bearings in low to medium speed applications, applications at elevated temperatures, and wet and corrosive environments. The grease is perfectly adapted to carry high loads and to resist vibrations and shock loads.

ADVANTAGES

- Excellent high and low temperature performance.
- Very good mechanical stability.
- · Good corrosion protection.
- Suitable for high speed applications.
- Very high load carrying capacity and excellent wear protection.

CLASSIFICATION

ISO 12924: L-XD(F)DIB2 DIN 51502: KPHC2N-40

								A	/AILABLE PACKAGI	NG
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 KG CART.	Drum 50 kg	DRUM 180 KG
Irix INO LX 460-2	460	Lithium Complex	2	-40 to 150 (max 220°C)	>260	>360	Beige	110408	110409	110410



CALCIUM SULFONATE COMPLEX GREASES

MINERAL

IRIX EVO CSX 290-2

(formerly IRIX HP-CXSM 290)

APPLICATION

Suitable for both industrial, marine and off-road applications. The extreme load carrying capacity and excellent water resistance make the product a perfect choice for heavily loaded applications in hot, or wet and corrosive environments.

ADVANTAGES

- Very good corrosion protection.
- Superb mechanical stability.
- · Very good water resistance.
- · Excellent load carrying capacity.

CLASSIFICATION

ISO 12924: L-XC(F)DIB2 DIN 51502: KP2N-30

								AVAILABLE PACKAGING			
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg CART.	DRUM 50 KG	DRUM 180 KG	
Irix EVO CSX 290-2	290	Calcium Sulfonate Complex	2	-30 to 140 (max 180°C)	>280	750	Brown	107191	110238	110226	



CALCIUM SULFONATE COMPLEX GREASES

MINERAL

IRIX EVO CSX 440-2

APPLICATION

Suitable for both industrial, marine and off-road applications. The extreme load carrying capacity and excellent water resistance make the product a perfect choice for heavily loaded applications in hot, or wet and corrosive environments.

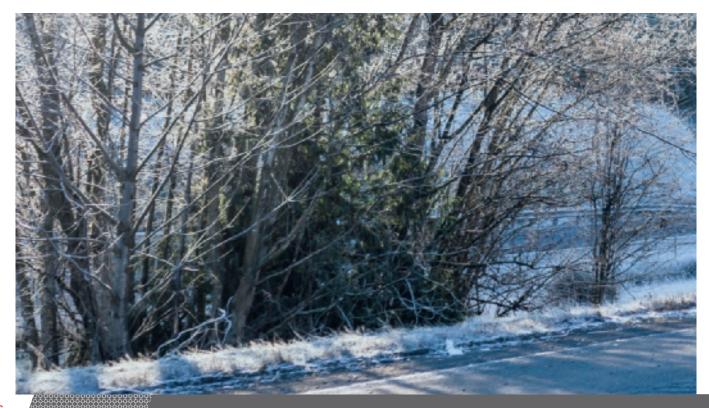
ADVANTAGES

- Very good corrosion protection.
- Superb mechanical stability.
- Very good water resistance.
- Excellent load carrying capacity.

CLASSIFICATION

ISO 12924: L-XC(F)DIB2 DIN 51502: KP2N-20

								AVAILABLE PACKAGING			
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg CART.	DRUM 50 KG	DRUM 180 KG	
Irix EVO CSX 440-2	440	Calcium Sulfonate Complex	2	-20 to 140 (max 180°C)	>280	650	Brown	110389	110390	110391	







GEAR GREASES

Oils are commonly used for closed gears, but greases with low base oil viscosity can be used for high speed or open gears. The grease characteristics will then be chosen according to speed and load: with decreasing speed or increasing load, grease with correspondingly higher base oil viscosity will be used.



LITHIUM-CALCIUM COMPLEX GREASES

MINERAL

IRIX EVO LCX 920-000

(formerly IRIX HP - LCM 92000)

APPLICATION

Suitable for industrial and automotive applications with high loads and slow speeds. Particularly developed for high pressure centralized lubrication systems, lubrication of low speed rollers in linear machine tool guides and closed gears. Prime choice for wet, dirty and highly loaded environments with low speeds.

ADVANTAGES

- Excellent load carrying capacity.
- $\bullet \ Offers \ lower \ friction \ coefficient.$
- · Very good water resistance.
- Superior corrosion protection and antioxidant properties.

CLASSIFICATION

ISO 12924: L-XB(F)CCB000 DIN 51502: GP000K-20

								AVAILABLE PACKAGING
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	Pail 19 kg
Irix EVO LCX 920-000	920	Lithium-Calcium Complex	000	-20 to 120 (max 130°C)	>180	700	Brown	107888



LITHIUM-CALCIUM COMPLEX GREASES

MINERAL

IRIX EVO LCX 500-0 G

(formerly IRIX HP-LCXM 500 G)

APPLICATION

High performance open gear grease with graphite designed to lubricate open mesh gears operating under heavy loads to avoid pitting and seizing. Especially suited for girth gears in the chemical, cement, mineral, fertilizer and metalworking industry or any mechanism requiring a lubricant capable of resisting severe operating conditions. Suitable spraying equipment for open gear.

ADVANTAGES

- Excellent water resistance.
- Good load carrying capacity.
- Excellent resistance to shock loads.
- Good corrosion protection, perfectly suited for wet and corrosive environments.

CLASSIFICATION

ISO 12924: L-XB(F)DIB0 DIN 51502: OGPF0K-20

								AVAILABLE PACKAGING		
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	4 х 5 кв	DRUM 50 KG	
Irix EVO LCX 500-0 G	500	Lithium-Calcium Complex	0	-20 to 120 (max 130°C)	>240	700	Black	108108	110449	



APPLICATION

Multi-purpose, extreme-pressure grease suitable for filling gearbox casings, spur gears and bevel gear drives, worm gear pairs and similar industrial gears. This grease is also suited for central lubricating installations of utility vehicles as well as for outside working units having long tubing.

SOFT GREASE 0 meets the requirements of the flow grease specifications of Groeneveld and MAN 283 Li-P0.

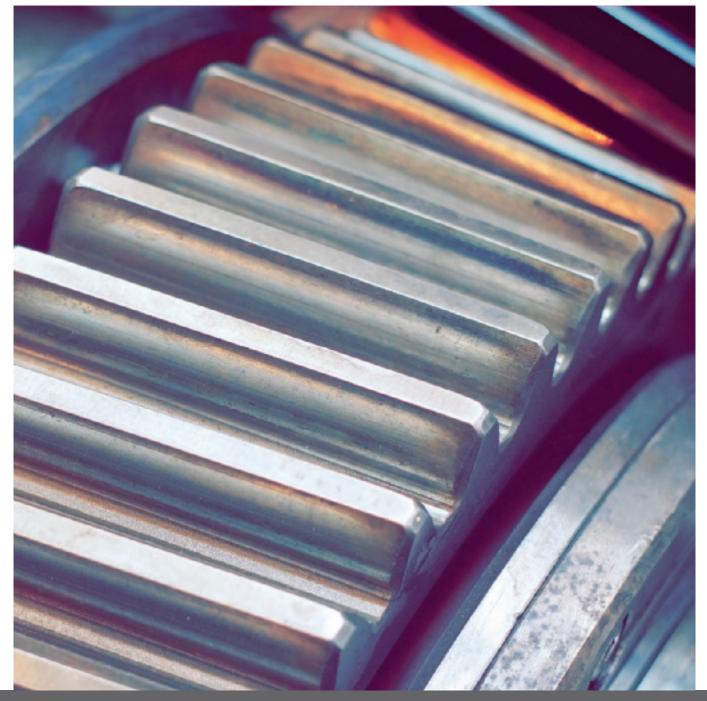
ADVANTAGES

- Extraordinary oxidation stability.
- Water resistant.
- Corrosion resistant.
 High pressure load capacity.
- Good adhesiveness.

CLASSIFICATION

ISO 6743-9: ISO-L-XCDEB 0 DIN 51502: GP0K-40

								AVAILABLE	PACKAGING
DDODUGT NAME	BASE OIL	THICKENER	NLGI GRADE	TEMPERATURE	DROP POINT	4-BALL WELD	001011	PAIL 19 KG	Drum 50 kg
PRODUCT NAME	VISCOSITY AT 40°C (CST)	THICKENER		RANGE (°C)	(°C)	LOAD (KG)	COLOUR		
Soft Grease 0	90	Lithium	0	-40 to 120	180	260	Dark brown	110432	100922





MACHINE TOOL GREASES

Machine tools increasingly run three shifts a day. So, a perfect lubrication of machine components is key to ensure reliability and durable performance whilst reducing wear and maintenance costs. Motul offers a range of lubricating greases dedicated to machine tools and formulated to offer the best performance and compatibility with process lubricants in use.



LITHIUM-CALCIUM COMPLEX GREASES

MINERAL

IRIX EVO LCX 920-000

(formerly IRIX HP - LCM 92000)

APPLICATION

Suitable for industrial and automotive applications with high loads and slow speeds. Particularly developed for high pressure centralized lubrication systems, lubrication of low speed rollers in linear machine tool guides and closed gears. Prime choice for wet, dirty and highly loaded environments with low speeds.

ADVANTAGES

- Excellent load carrying capacity.
- Offers lower friction coefficient.
- Very good water resistance.
- Superior corrosion protection and antioxidant properties.

CLASSIFICATION

ISO 12924: L-XB(F)CCB000 DIN 51502: GP000K-20

								AVAILABLE PACKAGING
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	Pail 19 kg
Irix EVO LCX 920-000	920	Lithium-Calcium Complex	000	-20 to 120 (max 130°C)	>180	700	Brown	107888



LITHIUM COMPLEX GREASES

SYNTHETIC IRIX INO LX 40-2

(formerly IRIX HP-PLC 42)

APPLICATION

Universal grease for wide range of temperature applications particularly at high speed and low temperature and where a lubricant with low frictional resistance even at low temperatures is required.

ADVANTAGES

- Excellent high and low temperature performance.
- Very good mechanical stability.
- · Good corrosion protection.
- Suitable for high speed applications.
- Very high load carrying capacity and excellent wear protection.

CLASSIFICATION

ISO 12924: L-XEDIB2 DIN 51502: KPHC2N-55

								AVAILABLE	PACKAGING
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 KG CART.	Drum 50 kg
Irix INO LX 40-2	44	Lithium Complex	2	-55 to 140 (max 180°C)	>260	>380	Beige	108102	110436



APPLICATION

Suitable for application in wet conditions, extends the relubrication intervals and performance due to its high degree of mechanical stability even when mixed with water. Recommended for lubrication of roller and plain bearings, manual lubrication of linear guide at low to medium speed in wet environments (machine tools, paper machines, etc.).

ADVANTAGES

- Good corrosion protection.
- Excellent adhesion.
- · Good resistance to shock loads.
- Very good water resistance.

CLASSIFICATION

ISO 12924: L-XCCEB2 DIN 51502: KP2K-30

								A۱	AILABLE PACKAGII	NG
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 KG CART.	Drum 50 kg	DRUM 180 KG
Irix EVO LC 150-2	150	Lithium-Calcium	2	-30 to 120 (max 130°C)	>180	315	Green	110420	110401	110402



LITHIUM COMPLEX GREASES

MINERAL

IRIX EVO LC 1200-2

(formerly IRIX HP-LCM 1202 CC)

APPLICATION

Suitable for heavily loaded industrial and heavy-duty applications including extreme outdoor wet and dirty conditions. Perfect choice for the lubrication of slow moving and heavily loaded bearings and tool or workpiece clamping systems in machine tools. This lubricating grease provides excellent adhesion and water resistance for perfect protection of chucks, collets and vices.

ADVANTAGES

- Excellent load carrying capacity.
- · Very good water resistance.
- · Excellent adhesion.
- Very good resistance to shock loads.
- Good corrosion protection.

CLASSIFICATION

ISO 12924: L-XB(F)CHB2 DIN 51502: KPF2K-10

	BASE OIL			TEMPERATURE		4-BALL WELD		AVAILABLE PACKAGING 24 x 0.4 kg
PRODUCT NAME	VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	RANGE (°C)	DROP POINT (°C)	LOAD (KG)	COLOUR	24 x 0.4 kg CART.
Irix EVO LC 1200-2	1200	Lithium-Calcium	2	-10 to 120 (max 130°C)	>180	>500	White	109613





MINING & HD GREASES

Cars and on-road vehicles are not necessarily exposed to extreme conditions but they still require protection and performance in order to offer a long lasting and worry-free use. Thus the greases in use have to bring lubrication for the moving parts as well as protection against the effects of water and dust for the lifetime of the vehicle.



LITHIUM GREASES

MINERAL

CG GREASE 000

APPLICATION

Multi-purpose, extreme-pressure grease suitable for central lubrication systems of commercial vehicles, suits also for outdoor aggregates with long pipes.

ADVANTAGES

- Good properties under heavy loads.
- Very good cold flow properties for better grease circulation in the pipes at cold temperature.
- Water resistant.
- Anti-corrosion, anti-rust and anti-oxidation.
- Excellent anti-wear properties.

CLASSIFICATION

ISO 12924: L-XCCIB00 DIN 51502: KP00K-30

								AVAILABLE	PACKAGING
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	PAIL 19 KG	D RUM 180 кG
CG Grease 000	45	Lithium	00/000	-50 to 120	>160	200	Red	108652	110268



LITHIUM GREASES

MINERAL SOFT GREASE O

A PPI ICATION

Multi-purpose, extreme-pressure grease suitable for filling gearbox casings, spur gears and bevel gear drives, worm gear pairs and similar industrial gears. This grease is also suited for central lubricating installations of utility vehicles as well as for outside working units having long tubing.

SOFT GREASE 0 meets the requirements of the flow grease specifications of Groeneveld and MAN 283 Li-P0.

ADVANTAGES

- Extraordinary oxidation stability.
- Water resistant.
- · Corrosion resistant.
- · High pressure load capacity.
- Good adhesiveness.

CLASSIFICATION

ISO 6743-9: ISO-L-XCDEB 0 DIN 51502: GP0K-40

PRODUCT NAME		THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)				AVAILABLE	PACKAGING
	BASE OIL VISCOSITY AT 40°C (CST)				DROP POINT	4-BALL WELD		PAIL 19 KG	Drum 50 kg
					(°C)	LOAD (KG)	COLOUR		
									\Box
Soft Grease 0	90	Lithium	0	-40 to 120	180	260	Dark brown	110432	100922



APPLICATION

General-purpose grease for the lubrication applications ranging from bearings to cables, chains and other linkages as well as chassis, pins and bushings. Suitable to lubricate bearings, gears and all mechanical units operating under medium loads.

ADVANTAGES

- · Good mechanical stability.
- Adequate pumpability at cold temperature.
- Anti-corrosion and anti-rust protection.
- Good adherence.

DIN	51502:	KP2K-30

CLASSIFICATION

									AVAILABLE	PACKAGING	
PRODUCT N	AME BASE OF VISCOSI AT 40°C (CST)	THICKENED	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg CART.	24 x 0.4 kg LS Cart.	DRUM 50 KG	DRUM 180 KG
Grease 1	00 110	Lithium	2	-30 to 120	180	240	Blue	108653	108654	100916	100917



LITHIUM EP GREASES

MINERAL IRIX L 150-2 MO

(formerly IRIX LSM 112 MO, MOLY GREASE)

APPLICATION

Lithium thickened lubricating grease based on mineral oil, antioxidants, corrosion inhibitors, extreme-pressure / anti-wear additives and MoS2. Suitable for general industrial applications such as lubrication of gears, rolling contact bearings, plain bearings, splined shafts, etc. under heavy conditions (load, shock, presence of water).

ADVANTAGES

- · Good mechanical stability.
- High load carrying capacity.
- Good corrosion protection.

CLASSIFICATION

ISO 12924: L-XBCHB2 DIN 51502: KPF2K-30

										AVAILABLE	PACKAGING		
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 KG CART.	24 x 0.4 kg LS CART.	12 x 1 кG	4 x 5 кв	D RUM 50 кG	DRUM 180 KG
Irix L 150-2 MO	150	Lithium	2	-30 to 120 (max 130°C)	>185	>325	Black	106893	108656	110474	106895	108659	108660



LITHIUM COMPLEX GREASES

MINERAL

IRIX EVO LX 200-2

(formerly IRIX HP-LXM 202)

Especially developed for the long-term lubrication of all mechanisms subjected to very harsh working conditions. Perfectly adapted grease for plain bearings, anti-friction bearings, small reduction gears, joints and other mechanisms subjected to high temperatures and loads as well as car and truck wheel bearings.

ADVANTAGES

- Excellent wear resistant
- and extreme-pressure properties.
- Very good resistance to water.
- · Excellent adhesiveness.
- Resistance to corrosion.

CLA	SSIF	ICAT	TION

ISO 12924: L-XBDHB2 DIN 51502: KPX2N-20

									AV	AILABLE PACKAG	NG	
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg CART.		Pail 19 kg	DRUM 50 KG	DRUM 180 KG
Irix EVO LX 200-2	200	Lithium Complex	2	-20 to 150 (max 160°C)	>240	400	Green	106790	110427	106869	106870	110435



CALCIUM / CALCIUM EP GREASES

MINERAL

IRIX C 1370-0

(formerly IRIX CSM 1370)

APPLICATION

Semi-fluid grease with corrosion inhibitors and extreme-pressure/ anti-wear additives. Suitable for the lubrication of heavily loaded bearings in wet and corrosive environments. Ideal for chassis or marine applications and as an universal grease for forestry, agricultural and construction vehicles. Easily pumpable even at low temperature in most high pressure centralized lubrication systems even with a high base oil viscosity.

ADVANTAGES

- Excellent adhesion.
- Excellent water resistance.
- Very good (shock) load carrying capacity.
- Good corrosion protection, perfectly suited for wet and corrosive environments.
- Excellent at low temperature for extra good winter performance.

CLASSIFICATION

ISO 12924: L-XD(F)CHBO DIN 51502: KPOK-40

								ΑV	/AILABLE PACKAGII	NG
	BASE OIL VISCOSITY AT			TEMPERATURE	DROP POINT	4-BALL WELD		PAIL 19 KG	Drum 50 kg	D RUM 180 кG
PRODUCT NAME	VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	RANGE (°C)	(°C)	LOAD (KG)	COLOUR			
Irix C 1370-0	1370	Calcium	0	-40 to 120 (max 130 °C)	>120	300	Yellow	108246	109096	108247



LITHIUM GREASES

MINERAL

IRIX FIFTH WHEEL GREASE

(formerly FIFTH WHEEL GREASE)

APPLICATION

Grease especially formulated for the lubrication of semi-trailer fifth wheel plates. Can be also used for the greasing of cables, open and ring gears, gear-racks and ball joints for civil engineering machinery.

- High adhesiveness.
- · Anti-corrosion protection.
- High temperature stability.
- High pressure load capacity. Reinforced with graphite.
- CLASSIFICATION
- DIN 51502: KPF2N-30

								AVAILABLE PACKAGING
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	Pail 19 kg
Irix Fifth Wheel Grease	800	Lithium	2	-30 to 140	190	320	Black	108655







AGRICULTURE & FORESTRY GREASES

As agriculture & forestry activities are highly seasonal and weather dependent, the reliability of vehicles and equipment is a must for users. Using a suitable lubricating grease is therefore a key factor for a carefree harvest, ground preparation or forestry. Furthermore, lubricants have to be compatible with an outdoor use where spillage must not create any enduring contamination of natural environment.



CALCIUM / CALCIUM EP GREASES

MINERAL

IRIX C 310-2

APPLICATION

Calcium thickened multi-purpose extreme-pressure grease based on mineral oil. Recommended for lubrication of bearings, bushings and plain bearings at low to medium speed, medium temperatures and high loads in wet environments. Mainly for agricultural machinery, heavy-duty and automotive applications. This grease is compatible with multi-purpose greases based on lithium and lithium/calcium.

ADVANTAGES

- · Good protection against corrosion.
- Good adhesiveness.
- Good resistance to shock loads.
- · Good water resistance.

CLASSIFICATION

ISO 12924: L-XCCHB2 DIN 51502: KP2G-30

								A۱	/AILABLE PACKAGII	NG	
	BASE OIL			TEMPERATURE	DROP POINT	4-BALL WELD		24 x 0.4 kg Cart.	Drum 50 kg	D RUM 180 кG	
PRODUCT NAME	VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	RANGE (°C)	(°C)	LOAD (KG)	COLOUR				
Irix C 310-2	310	Calcium	2	-30 to 120 (max 130 °C)	>140	320	Green	110411	110412	110413	



LITHIUM GREASES SEMI-SYNTHETIC HD-AGRI GREASE

APPLICATION

Multi-purpose grease especially formulated for applications requiring a good resistance to heavy loads and water. Greasing of roller and plain bearings, articulations, cables of tractors, harvesters, wine machinery and all types of civil engineering machinery.

ADVANTAGES

- Excellent results in presence of water.
- Good adherence on surfaces.
- Very good anti-wear & anti-corrosion protection.
 Good performance in time.
- Excellent results for heavy loads.

DIN 51502: KP2N-30

									AVAILABLE	PACKAGING	
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg CART.	24 x 0.4 kg LS Cart.	DRUM 50 KG	DRUM 180 KG
HD-Agri Grease	800	Lithium	2	-30 to 140	190	280	Light green	108676	108678	108690	108691



CALCIUM / CALCIUM EP GREASES

ESTER DE CO. CO.

IRIX BIO BE 30-000

APPLICATION

Suitable for automatic centralized outdoor lubricating installations in the industrial and HD sector, particularly for outdoor utility vehicles. Also appropriate for the onboard lubrication of wheel flanges for underground or aboveground rail vehicles and for the temporary protection of metal parts.

ADVANTAGES

- Environmentally acceptable.
- · Water resistant.
- Excellent corrosion protection.
- · Low temperature stable.

CLASSIFICATION

DIN 51502: KPE000K-40

PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	AVAILABLE PACKAGING PAIL 18 KG
Irix BIO BE 30-000	32	Bentonite	000	-40 to 120	none	none	Amber	110422



CALCIUM / CALCIUM EP GREASES

ESTER

IRIX BIO C 110-2

APPLICATION

Multifunctional biodegradable grease for machines working under mild conditions of load and temperature. Suitable for bearings and plain bearings, slideways, sliding locks, lubrication of various machines movements. Also intended for the temporary protection of metal parts. This lubricating grease offers a good mechanical stability, a good resistance to shock loads and is easily pumpable in most modern centralized lubrication systems.

ADVANTAGES

- Biodegradable.
- Excellent water resistance.
- · Good resistance to shock loads.
- · Good mechanical stability.

CLASSIFICATION

ISO 12924: L-XCBHB2 DIN 51502: KPE2E-30

								A۱	AILABLE PACKAGI	NG
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg Cart.	DRUM 50 KG	DRUM 180 KG
Irix BIO C 110-2	110	Calcium	2	-30 to 80 (max 100°C)	>140	280	Amber	110414	110415	110416



CALCIUM / CALCIUM EP GREASES

ESTER

IRIX BIO C 210-2 FG

APPLICATION

This grease is ideal not only for applications in the food producing sector, but also in marine, forestry, agriculture and construction machinery. It is easily pumpable in most modern high pressure centralized lubrication systems.

ADVANTAGES

- Readily biodegradable.
- Excellent water resistance.
- Excellent adhesion.
- Meets NSF H1 requirements.

CLASSIFICATION

ISO 12924: L-XD(F)BIB2 DIN 51502: KPE2G-40

								A۱	/AILABLE PACKAGI	NG
	BASE OIL			TEMPERATURE	DROP POINT	4-BALL WELD		24 x 0.4 kg	D RUM 50 кG	D RUM 180 кG
PRODUCT NAME	VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	RANGE (°C)	(°C)	LOAD (KG)	COLOUR	CART.		
								Щ		
Irix BIO C 210-2 FG	210	Calcium	2	-40 to 120	>140	300	White	110417	110418	110419



APPLICATION

 $Year-round\ grease\ for\ railway\ points\ and\ wheel\ flanges.\ Suitable\ for$ all kind of trackside lubrication spray systems. This product features excellent sprayability even at very low temperatures and extreme climatic conditions.

ADVANTAGES

- Biodegradable.
- Resistance to water.
- Excellent adhesion.

CLASSIFICATION

DIN 51502: KPF2K-30

PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	AVAILABLE PACKAGING JERRYCAN 8.9 KG
Irix HP - SI 180	20	Microgel	n/a	-30 to 120	none	n/a	Dark yellow	101877



CALCIUM SULFONATE COMPLEX GREASES

MINERAL

IRIX EVO CSX 440-2

Suitable for both industrial, marine and off-road applications. The extreme load carrying capacity and excellent water resistance make the product a perfect choice for heavily loaded applications in hot, or wet and corrosive environments.

ADVANTAGES

- Very good corrosion protection.

- Superb mechanical stability.
 Very good water resistance.
 Excellent load carrying capacity.

CLASSIFICATION

ISO 12924: L-XC(F)DIB2 DIN 51502: KP2N-20

								ΑV	AILABLE PACKAGII	NG
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg CART.		DRUM 180 KG
Irix EVO CSX 440-2	440	Calcium Sulfonate Complex	2	-20 to 140 (max 180°C)	>280	650	Brown	110389	110390	110391







FOOD & BEVERAGE GREASES

Like any industry, lubrication is key to reliability and productivity, but it is equally important that the lubricants used in the food industry actively contribute to improving food safety standards too, hence MOTUL has consistently invested in its capability to formulate food grade lubricants that deliver equipment protection whilst ensuring compliance with relevant industry regulations. The Motul range of high performance food grade greases are NSF H1 registered.



BENTONITE GREASE

WHITE OIL

IRIX BE 70-2 FG

(formerly TECH GREASE FG 2)

APPLICATION

Suitable for the lubrication of anti-friction bearings, chains, joints, slides in food processing, cosmetic and pharmaceutical industries. Intended for use in applications where there is only potential for incidental food contact. NSF H1 registered under the registration number 139436. Kosher and Halal certified.

Meets the FDA - 21 CFR 187.3570 specifications.

ADVANTAGES

- Excellent water resistance.
- Permitted for incidental food contact.
 Translucent grease.

CLASSIFICATION

ISO 12924: L-XBCAA2 DIN 51502: KPX2K-15

									AVAILABLE	PACKAGING	
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 KG CART.	12 x 0.9 kg Cart.	PAIL 25 KG	Drum 50 kg
Irix BE 70-2 FG	70	Bentonite	2	-15 to 120	none	n/a	Crystal	103198	101672	102152	110437



CALCIUM SULFONATE COMPLEX GREASES

SEMI-SYNTHETIC IRIX EVO CSX 100-2 FG

APPLICATION

Suitable for food industries where lubricants may have incidental contacts with food stuff. It is recommended for heavy loaded applications with medium to high speed bearings such as pellet presses and compactors used to process pet food and animal feed. Good pumpability in centralized lubrication systems even at low temperature.

NSF H1 registered under number 161192.

ADVANTAGES

- Excellent water resistance.
- · Good load carrying capacity.
- Excellent resistance to shock loads.

CLASSIFICATION

ISO 12924: L-XC(F)DHB1.5 DIN 51502: KP1.5N-30

								A	/AILABLE PACKAGI	NG
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 KG CART.	Drum 50 kg	Drum 180 kg
Irix EVO CSX 100-2 FG	100	Calcium Sulfonate Complex	1.5	-30 to 140 (max 180°C)	>300	650	Brown	110392	110393	110394



CALCIUM SULFONATE COMPLEX GREASES

WHITE OIL

IRIX EVO CSX 460-2 FG

APPLICATION

Suitable for food industries where lubricants may have incidental contacts with food stuff. Recommended for heavy loaded applications with low to medium speed bearings, such as pellet presses and compactors used to process pet food and animal feed.

NSF H1 registered under number 161193.

ADVANTAGES

- · Excellent water resistance.
- Good load carrying capacity.
- Excellent resistance to shock loads.

CLASSIFICATION

ISO 12924: L-XB(F)DHB2 DIN 51502: KP2N-20

								A۱	/AILABLE PACKAGI	NG
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 KG CART.	Drum 50 kg	DRUM 180 KG
Irix EVO CSX 460-2 FG	460	Calcium Sulfonate Complex	2	-20 to 140 (max 180°C)	>280	650	Brown	110395	110396	110397



ALUMINIUM COMPLEX GREASES

SYNTHETIC

IRIX INO AX 330-2 FG

(formerly IRIX HP - PAK 332)

APPLICATION

Suitable for food industries where lubricants may have incidental contacts with food stuff. It is recommended for lubrication for bearings operating at medium speed, including heavily loaded applications. NSF H1 registered under number 155333.

ADVANTAGES

- Excellent water and oxidation resistance.
- · Good load carrying capacity.
- Excellent resistance to shock loads.

CLASSIFICATION

ISO 12924: L-XDCEB2 DIN 51502: KPHC2K-40

								Α\	AILABLE PACKAGI	NG
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 kg Cart.	12 x 1 kg	DRUM 50 KG
Irix INO AX 330-2 FG	330	Aluminium Complex	2	-40 to 120 (max 130°C)	>230	>400	White	108105	110438	110448



PTFE GREASES

SILICONE

IRIX INO TF 1000-3 FG

APPLICATION

Suitable for the lubrication of seals and gaskets, plastic parts for tap and valve systems, sealing of glass instruments. Can also be used for very low-load rolling bearings used in food & beverage industry. NSF H1 registered under number 161196.

- Excellent resistance to high temperatures, water even if hot and steam.
- · Non-physiological effect.
- Good compatibility with EPDM seals.
- Excellent performance even at high temperatures.

PRC	DDUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	AVAILABLE PACKAGING 12 x 1 kg
Irix INO	TF 1000-3 FG	1000	PTFE	3	-45 to 180	>300	n/a	White	110431



SILICA PASTE

SEMI-SYNTHETIC IRIX CERAMIC PASTE

APPLICATION

Suitable for lubricating bushes, sliding surfaces, and small open plastic or metal gears. It is also an anti-seize compound for threaded fasteners. The compound is designed to prevent damages during startup and protect against premature wear during the running in period. Not recommended for the lubrication of anti-friction bearings. NSF H1 registered under number 161195.

ADVANTAGES

- Excellent water resistance.
- Prevents seizure of threaded components.
- · Protection against scuffing.

PR	ODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	AVAILABLE PACKAGING 12 x 1 KG
Irix C	eramic Paste	240	Silica	2	-30 to 150	none	600	White	110388



CALCIUM GREASES

ESTER

IRIX BIO C 210-2 FG

APPLICATION

This grease is ideal not only for applications in the food producing sector, but also in marine, forestry, agriculture and construction machinery. It is easily pumpable in most modern high pressure centralized lubrication systems.

NSF H1 registered under number 161194.

ADVANTAGES

- Readily biodegradable.
- Excellent water resistance.
- Excellent adhesion.

CLASSIFICATION

ISO 12924: L-XD(F)BIB2 DIN 51502: KPE2G-40

								Α\	/AILABLE PACKAGI	NG
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	24 x 0.4 KG CART.	DRUM 50 KG	Drum 180 kg
Irix BIO C 210-2 FG	210	Calcium	2	-40 to 120	>140	300	White	110417	110418	110419







SPECIALTY GREASES

From a large variety of additives and base oils, these Motul products offer peak performance and reliability in extreme conditions, for day to day maintenance or lifetime lubrication.



POLYMER BASED GREASES

SYNTHETIC

IRIX INO P 260-2

Suitable for a wide variety of applications where long life is of critical importance. Improved lubrication of sensitive materials such as aluminum, ceramics, and elastomers. Due to the inert nature of the thickener system, the product is also compatible with most types of conventional lubricating greases.

ADVANTAGES

- · Long life.
- Inert thickener.
- · Excellent water resistance.
- · Controlled oil separation.
- Excellent pumpability.
- Excellent resistance to water and aggressive chemicals.

CLASSIFICATION

ISO 12924: L-XC(F)CIB2 DIN 51502: KPHC2K-30

								Α\	/AILABLE PACKAGI	NG
	BASE OIL VISCOSITY			TEMPERATURE	DROP POINT	4-BALL WELD		24 x 0.4 kg	D RUM 50 кG	D RUM 180 кG
PRODUCT NAME	AT 40°C (CST)	THICKENER	NLGI GRADE	RANGE (°C)	(°C)	LOAD (KG)	COLOUR	CART.	P	
								ЩШ		\Box
Irix INO P 260-2	260	Polymer	2	-30 to 120	>140	320	Yellow	110403	110404	110405



POLYUREA BASED GREASES

MINERAL

IRIX EVO PU 190-2

This grease is extremely temperature stable and covers a wide temperature range. It is extremely suitable for lubricating roller and friction bearings exposed to high temperatures and pressure. It is especially appropriate for lifetime lubrication of roller bearings in maintenance-free devices but also for earthmoving equipments or the crushing industry where longer lubrication intervals are determined.

ADVANTAGES

- · Work stable.
- Oxidation resistant.
- · Water resistant.
- Excellent corrosion protection.
- · High thermal load bearing capacity,
- extremely temperature stable.

 High pressure absorption capacity.
- Good adhesiveness.

CLASSIFICATION

DIN 51502: KP2P-30

								A\	/AILABLE PACKAGII	NG
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	12 x 0.4 KG CART.	Drum 50 kg	DRUM 180 KG
Irix EVO PU 190-2	190	Polyurea	2	-30 to 160 (max 180°C)	>300	315	Amber	110423	110429	110430



POLYUREA BASED GREASES

MINERAL

IRIX INO TF 500-2

APPLICATION

Adapted for the lubrication of bearings and articulations submitted to high temperatures as in corrugator services, ovens, drying and stabilisation tunnels. Typical applications include preconditioner rolls, single facers, and double backers. It is well suited for the lubrication and preservation of electrical contacts. The product is chemically inert, non-flammable, non-toxic and remains unaffected by water and steam, preventing lubricant washout.

* Special lubricant, please contact Motul before ordering.

ADVANTAGES

- · Non-flammable.
- · Physico-chemical inert to liquids or gases.
- Resistant to thermal and mechanical stresses and to most concentrated chemical agents.
- Compatible with almost all metal, elastomer, seal types, plastics and metals.
- Very wide temperature range.

PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	AVAILABLE PACKAGING 10 x 0.8 kg Cart.
Irix INO TF 500-2	500	PTFE	2	-30 to 300	none	>500	White	110445



PTFE GREASES

SILICONE

IRIX INO TF 1000-3 FG

APPLICATION

Suitable for the lubrication of seals and gaskets, plastic parts for tap and valve systems, sealing of glass instruments. Can also be used for very low-load rolling bearings used in food & beverage industry. NSF H1 registered under number 161196.

ADVANTAGES

- Excellent resistance to high temperatures, water even if hot and steam.
- · Non-physiological effect.
- Good compatibility with EPDM seals.
- Excellent performance even at high temperatures.

								AVAILABLE PACKAGING
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	12 x 1 кG
Irix INO TF 1000-3 FG	1000	PTFE	3	-45 to 180	>300	n/a	White	110431



SILICA PASTE

SEMI-SYNTHETIC IRIX CERAMIC PASTE

APPLICATION

Suitable for lubricating bushes, sliding surfaces, and small open plastic or metal gears. It is also an anti-seize compound for threaded fasteners. The compound is designed to prevent damages during startup and protect against premature wear during the running in period. Not recommended for the lubrication of anti-friction bearings. NSF H1 registered under number 161195.

- Excellent water resistance.
- · Prevents seizure of threaded components.
- Protection against scuffing.

PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	AVAILABLE PACKAGING 12 x 1 kg
Irix Ceramic Paste	240	Silica	2	-30 to 150	none	600	White	110388



LITHIUM PASTE MINERAL

IRIX ALUMINIUM PASTE

APPLICATION

Suitable to ease assemblies, static or semi-static (coupling electrical motor/gear boxes, ingot clamps, and any other mechanical parts working at very low speed and high temperatures). This paste considerably reduces contact corrosion effects and eases disassembly even after a long period of exposure at high temperature.

ADVANTAGES

- · High temperature resistance.
- · Excellent adhesion.
- · Protection against scuffing.
- · Easier assembling and disassembling.

PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	AVAILABLE PACKAGING 12 x 1 kg
Irix Aluminium Paste	100	Lithium	2	-20 to 700	>190	315	Aluminium	110387



BENTONITE BASED PASTE

MINERAL

IRIX COPPER PASTE

(formerly IRIX HP-BEM 482 CU)

APPLICATION

Suitable to ease assemblies, static or semi-static (coupling electrical motor/gear boxes, ingot clamps, and any other mechanical parts working at very low speed and high temperatures). This paste considerably reduces contact corrosion effects and eases disassembly even after a long period of exposure at high temperature.

ADVANTAGES

- · Contains 25% copper powder.
- · High temperature assembling paste.
- · Easier assembling and disassembling.
- Good protection against corrosion.
- Excellent adhesion.

CLASSIFICATION

ISO 12924: L-XCGDB2 DIN 51502: KF2T-35

								AVAILABLE PACKAGING
PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	12 x 1 KG
Irix Copper Paste	485	Bentonite	2	-35 to 1100	none	400	Copper	110439



LITHIUM COMPLEX PASTE

SEMI-SYNTHETIC IRIX ROCK DRILL PASTE

APPLICATIO

Suitable for various types of bearing applications including heavy load conditions and wet environments. The copper and graphite solid additives give extra protection in applications with slow moving or oscillating motions.

ADVANTAGES

- · Good load carrying capacity.
- Excellent resistance to shock loads.
- Good protection against corrosion.
- Excellent extreme-pressure properties.

CLASSIFICATION

ISO 12924: L-XBCHB2 DIN 51502: KPF2K-20

PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	AVAILABLE PACKAGING 12 x 1 kg
Irix Rock Drill Paste	320	Lithium Complex	2	-20 to 180 (max 200°C)	>240	>620	Black	110406



LITHIUM-CALCIUM GREASES

MINERAL

IRIX EVO LC 1200-2

(formerly IRIX HP - LCM 1202 CC)

APPLICATION

Suitable for heavily loaded industrial and heavy-duty applications including extreme outdoor wet and dirty conditions. Perfect choice for the lubrication of slow moving and heavily loaded bearings and tool or workpiece clamping systems in machine tools. This grease provides excellent adhesion and water resistance for perfect protection of chucks, collets and vices.

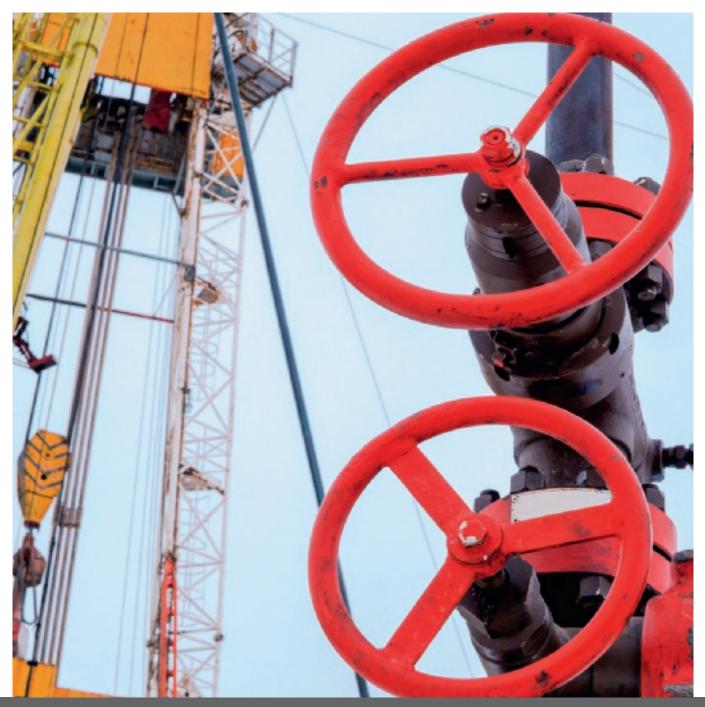
ADVANTAGES

- Excellent load carrying capacity.
- Very good water resistance.
- Excellent adhesion.
- Very good resistance to shock loads.
- Good corrosion protection.

CLASSIFICATION

ISO 12924: L-XB(F)CHB2 DIN 51502: KPF2K-10

PRODUCT NAME	BASE OIL VISCOSITY AT 40°C (CST)	THICKENER	NLGI GRADE	TEMPERATURE RANGE (°C)	DROP POINT (°C)	4-BALL WELD LOAD (KG)	COLOUR	AVAILABLE PACKAGING 24 x 0.4 kg CART.	
Irix EVO LC 1200-2	1200	Lithium-Calcium	2	-10 to 120 (max 130°C)	>180	>500	White	109613	





AEROSOLS

Specialty products for a simple, quick and clean form of application for various employments. Due to their precise application - even in difficult to access areas - these aerosols are indispensable for numerous maintenance and assembly applications.



MULTI-USE SAFCO SPRAY MULTILUBE

APPLICATION

Multifunctional lubricant, rust preventative, cleaner for any kind of industrial maintenance and daily workshop usage.

ADVANTAGES

- One product for various applications.
- Biodegradable.
- Without silicone, acids or chlorinated solvents.
- Compatible with all plastics, elastomers and paint.

				AVAILABLE PACKAGING		
PRODUCT NAME	CONTAINER	NET CONTENT	FLASH POINT °C	6 x Aerosols 400 mL		
Safco Spray Multilube	650 mL	400 mL	>100	106139		



CLEANER - DEGREASER SAFCO SPRAY 21

APPLICATION

Fast cleaning solvent degreaser for any kind of workshop and industrial usage. Can also be used as a temporary corrosion protection.

- Compatible with most plastics and elastomers.
- Quick evaporation time.
- Cleans part from oil, grease, ink, glue, resins or plastics residues.

				AVAILABLE PACKAGING		
PRODUCT NAME	CONTAINER	NET CONTENT	FLASH POINT °C	6 x Aerosols 400 mL		
Safco Spray 21	650 mL	400 mL	23	106972		



EJECTOR PIN LUBRICATION EJECTOR LUBE

APPLICATION

High performance grease for ejector pin lubrication of plastic injection moulds.

ADVANTAGES

- High temperature stable, inflammable.
- Excellent anti-wear properties.
- Very good corrosion protection.
- Compatible with any kind of metals, plastics and elastomers.

			AVAILABLE PACKAGING		
PRODUCT NAME	CONTAINER	NET CONTENT	6 x Aerosols 400 mL		
Ejector Lube	650 mL	400 mL	107020		



RELEASE AGENT FOR PLASTIC INJECTION DEMOLD SPRAY

APPLICATION

Release agent for plastic injection moulds, extrusion, blow moulding, thermoforming and compression. Perfect for the release of materials such as polyamides, ABS, polyurethanes, epoxies, polyesters, rubbers...

ADVANTAGES

- High temperature stable, inflammable.
- · Excellent anti-wear properties.
- Very good corrosion protection.
- · Compatible with any kind of metals, plastics and elastomers.

			AVAILABLE PACKAGING		
PRODUCT NAME	CONTAINER	NET CONTENT	6 x Aerosols 500 mL		
Demold Spray	650 mL	500 mL	107019		



HEAVY-DUTY CLEANING GEL INTENSE CLEANER

APPLICATION

High power gel cleaner for paints, residues and dirt on metal surfaces. Especially suited for the cleaning of plastic residues on plastic injection moulds.

ADVANTAGES

- · Without chlorinated solvents.
- Very fast cleaning time.
- Works perfectly even on vertical surfaces.

				AVAILABLE PACKAGING		
PRODUCT NAME	CONTAINER	NET CONTENT	FLASH POINT °C	6 x Aerosols 400 mL		
Intense Cleaner	650 mL	400 mL	43	107021		



METALWORKING NEAT OIL SUPRACO SPRAY

APPLICATION

For very severe machining on all ferrous metals such as manual thread, comb thread, rolling thread, die thread, drilling, manual and semi-automatic tapping.

- Very high lubricating properties and extreme-pressure capacity.
- Good anti-wear properties.
- · Increases tool life.

				AVAILABLE PACKAGING		
PRODUCT NAME	VISCOSITY AT 40°C (CST)	CORROSION COPPER	FLASH POINT °C	6 x Aerosols 400 mL		
Supraco Spray	53	4c	100	108719		

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