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LMP OILS, BATTERIES & FILTERS

TECHNICAL DATA SHEETS



**TYPICAL TEST DATA**

**ULTRAPOWER HYDRAULIC OILS**

<i>ISO Grade:</i>	<i>Product Code:</i>	<i>SG @ 15.6°C</i>	<i>KV @ 40°C (cSt)</i>	<i>KV @ 100°C (cSt)</i>	<i>VI</i>	<i>Flash Point (°C)</i>
3	H001	0.822	3.01		-	-
5	H002	0.827	5.08		-	-
10	H003	0.850	9.8		90	162
15	H004	0.860	15.09		95	183
22	H005	0.865	21.99	4.3	101	195
32	H006	0.873	32.02	5.4	102	215
37	H007	0.875	36.97	5.9	101	217
46	H008	0.878	46.03	6.8	102	220
68	H009	0.880	68.06	8.8	102	224
100	H010	0.889	100.04	11.4	100	228
150	H011	0.890	150.11	15.1	101	231
220	H012	0.893	219.98	19.4	100	233
320	H013	0.895	319.97	25.0	100	235
460	H014	0.901	462.1	31.3	98	245

## TECHNICAL DATA SHEETS



## AGRIFARM PLUS 10W/30

Mineral oil based Super Universal  
Tractor Oil

Product code: M080

### **Product Description:**

AgriFarm Plus 10W/30 is a modern Super Universal Tractor oil suitable for engines, transmissions, hydraulics and final drives.

The very latest agricultural machinery in today's intensive farming environment needs the protection of a high quality lubricant.

AgriFarm Plus 10W/30 is blended from carefully selected base oils and the very latest in additive technology to produce a lubricant for the demands of the very latest Farm equipment. It offers increased lower temperature performance and improves hydraulic response. The latest additives used help reduce wet brake noise and chatter. The carefully selected base oils ensure protection even under the most arduous of conditions.

### **Benefits:**

- Improved low temperature stability
- Meets the very latest OEM requirements
- Helps reduce wet brake noise
- Suitable for most agricultural machinery requirements
- High API diesel specification

### **Application:**

AgriFarm Plus 10W/30 is suitable for use in both normally aspirated and turbo charged diesel and petrol engines, transmission systems including those fitted with wet brakes, hydraulic systems, oil immersed clutches, gearboxes and final drives. It is suitable for Agricultural, Plant and Off Road machinery.

### **Product Specification:**

API	CF-4/SF, CI-4 (soot levels only) GL-4 (gears)
ACEA	E-2, E7 (soot, wear, & piston cleanliness)
CCMC	D-4
MB	227.1, 228.1, 228.3
Massey Fergusson	M1139, M1144 (SUTO) M1135, M1143 (UTTO) M1145 (pending)
	Ford M2C159B (SUTO) M2C134D (UTTO)
Case	1207
Allison	C4
John Deere	J27 (SUTO) J20C (UTTO)
ZF	TE-ML 06 Parts A,B,C & D TE-ML 07B
FNH Spec.	82009201/2/3
Caterpillar	T0-2

### **Typical Test Data:**

SG @ 15.6°C	0.881
KV @ 100°C (cSt)	10.21
KV @ 40°C (cSt)	66.22
VI	140
Flash Point COC (°C)	223
Pour Point (°C)	-36
TBN (mg KOH / g)	10.37

### **Health & Safety: (Group 1)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

### **Availability:**

AgriFarm Plus 10W/30 is available in bulk road tanker deliveries, 205 litre barrels and 25 litre drums.



## AGRIFARM

### 15W30

Mineral oil based Super Universal Tractor Oil

Product codes: M086

#### **Product Description:**

AgriFarm 15W30 is a Super Universal Tractor Oil grades suitable for engines, transmissions, hydraulics and final drives.

The latest agricultural machinery in today's intensive farming environment needs the protection of a high quality lubricant.

AgriFarm 15W30 is blended from carefully selected base oils and the latest in additive technology to produce a lubricant for the demands of most farm equipment. The latest additives used help reduce wet brake noise. The carefully selected base oils ensure protection even under the most arduous of conditions.

#### **Benefits:**

- Meets the majority of OEM requirements
- Helps reduce wet brake noise
- Suitable for most agricultural machinery requirements
- High API diesel specification

#### **Application:**

AgriFarm 15W30 is suitable for use in both normally aspirated and turbo charged diesel and petrol engines, transmission systems including those fitted with wet brakes, hydraulic systems, oil immersed clutches, gearboxes and final drives. It is suitable for agricultural, plant and off road machinery.

#### **Product Specification:**

API	CE/SF	(Engine)
	GL-4	(Gears)
	CCMC	D4/G2
MB	227.1	
Massey Ferguson	1135, 1137, 1139	
Ford	M2C 86A, 121B, 134B/C, 159B	
Case	1206, 1207	
Allison	C4	
John Deere	J20A, J27	
ZF	TE ML 05, 06, 07	
Caterpillar	TO-2	

#### **Typical Test Data:**

Grade:	15W30
Product code:	M086
_____SG @ 15.6°C	0.883
KV @ 100°C (cSt)	11.49
KV @ 40°C (cSt)	85.04
VI	125
Flash Point COC (°C)	218
Pour Point (°C)	-29
TBN (mg KOH / g)	10.38

#### **Health & Safety: (Group 1)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

#### **Availability:**

AgriFarm 15W30 is available in bulk road tanker deliveries, 205 litre barrels and 25 litre drums.



## ULTRAMAX SHPD

### E7 15W/40

Mineral oil based heavy duty diesel engine oil.

Product code: M363

#### **Product Description:**

UltraMax SHPD E7 15W/40 is the very latest, new generation “Super High Performance” heavy duty diesel engine oil formulated to meet the most severe lubrication requirements demanded by Mercedes Benz, Cummins and Scania. It has been formulated to meet the critical demands of Euro 4.

UltraMax SHPD E7 15W/40 is a blend of solvent refined base oils, viscosity index improvers, pour point depressants, and one of the most innovative additive systems to be developed in the last few years.

#### **Benefits**

- Offers improved wear protection, and soot dispersancy
- The very latest industry standard ACEA E7 and API CI-4
- Ideal choice for newer mixed fleet long haul vehicles needing a Euro 4 or Euro 3 grade

#### **Application**

UltraMax SHPD E7 15W/40 is the first choice for all European truck and buses used for inter city or long haul applications, where an oil needing to satisfy the requirements of Euro 4 and Euro 3 is called for.

UltraMax SHPD E7 15W/40 is at the forefront of new heavy duty diesel engine oil technology meeting API CI-4/SL, ACEA E7 and VDS-3 quality.

UltraMax SHPD E7 15W/40 is particularly suited for Cummins engines where piston cleanliness, oxidation and wear and emissions are finely controlled.

#### **Performance Specification**

UltraMax SHPD E7 15W/40 meets the requirements of:

API	CI-4/CH-4/CG-4/SL
ACEA	E7/E5/E3/B4/B3/A3
Mercedes Benz	228.3 and 229.1
Cummins	20071/72/76/77/78
MAN	M 3275
MTU	Type 2
Mack	EO-M+
Volvo	VDS-3
Renault	RVI RLD-2
Global	DHD-1
ZF	TE-ML 07C / 04C
Caterpillar	ECF 1

#### **Typical test data:**

SG @ 15.5 °C	0.887
KV @ 100°C	14.39 cSt
KV @ 40°C	106.02 cSt
Viscosity index	139
Pour point	-31 °C
Flash point	210 °C

#### **Availability**

UltraMax SHPD E7 15W/40 is available in bulk road tanker deliveries, 205L barrels, and 25L drums.

#### **Health and Safety (Group 1)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all our customers.



# SUPERMAX

## MULTI-FLEET 15W/40

Mineral oil based engine oil

Product code: M330

### **Product Description:**

Supermax 15W/40 has been designed to meet the specification requirements of the latest turbo charged and naturally aspirated diesel and petrol engines. Endurance 15W/40 is manufactured from heat stable, high viscosity index, solvent refined base oils with a balance on anti-oxidant, anti-wear and detergent, dispersant additives along with a shear stable viscosity improver ensuring easier starting and extended engine life.

### **Benefits**

- High shear stability for stay in grade performance.
- Excellent high temperature stability
- Improved bore polishing protection
- Excellent anti wear performance for reduced engine wear.
- Ideal mixed fleet lubricant
- Excellent sludge control for stop-go city motoring.

### **Application**

Supermax 15W/40 is recommended for use in transport fleets, public service vehicles, plant equipment, light to heavy duty commercial vehicles and passenger cars.

### **Product Specification:**

API	CG-4/SJ
ACEA	A3, B2,B3, E2
VW	501, 505
MB	228.1, 229.1 pending
Mack	EO-M pending
MAN	271
MTU	Category 1
Volvo	VDS

### **Typical Test Data:**

SG	@	15.6°C	0.885
KV	@	100°C	(cSt) 14.49
KV	@	40°C	(cSt) 106.98
VI			139
Flash Point COC (°C)			217
Pour Point (°C)			-30
TBN	(mg KOH / g)		8.22

### **Health & Safety: (Group 1)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

### **Availability:**

Supermax 15W/40 is available in bulk road tanker deliveries, 205 litre barrels, and 25 litre drums.



## OPTIMA LSV 5W/30

Fully synthetic engine oil  
Product code: M373

### **Product Description:**

Optima LSV 5W/30 is a new generation fully synthetic super multigrade engine oil formulated using the latest developments in synthetic technology together with the most up to date advancements in additive chemistry setting new standards in engine oil performance.

Optima LSV 5W/30 has been developed to enable outstanding performance to be provided along with effective emission control and full compatibility with emission control after-treatment systems. Low SAPS (sulphated ash, phosphorus, and sulphur) additive technology ensures optimum performance of emission control equipment including particulate filters, at the same time providing long term emission system protection, ensuring a high level of continuous pollution control thereby minimising environmental damage.

### **Applications:**

Optima LSV 5W/30 is particularly formulated to meet the performance demands and requirements of the most up to date Audi VW specifications VW 504.1 and VW 507.00 which encompass high standards of emission control and vigorous high speed styles of driving.

### **Health & Safety: (Group 1)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

### **Availability:**

Optima LSV 5W/30 is available in bulk road tanker deliveries, 205 litre barrels and 25 litre drums.

### **Benefits:**

- Effective environmental protection
- Ensures lubricant performance over extended drain intervals
- Effective fuel efficiency
- Very high standards of engine cleanliness
- Exceptional long term anti-wear and oxidation stability
- Excellent high and low temperature performance
- Exceptional long term additive response

### **Product Specification:**

ACEA	A3, B4
VW	504.00 & 507.00

### **Typical Test Data:**

KV @ 100°C (cSt)	11.8
KV @ 40°C (cSt)	72.3
Viscosity index	160
CCS @ -30°C (cP)	6080
Sulphated ash (% /w)	0.60
Flash Point COC (°C)	212
TBN (mg KOH / g)	6.00



## TECHNICAL DATA SHEETS



## FULLY SYNTHETIC 5W/30

Fully synthetic engine oil  
Product code: M377

### Product Description:

Fully Synthetic 5W/30 is a new generation fully synthetic super multigrade engine oil formulated using the latest developments in synthetic technology together with the most up to date advancements in additive chemistry setting new standards in engine oil performance.

Fully Synthetic 5W/30 has been developed to enable outstanding performance to be provided along with effective emission control and full compatibility with emission control after treatment systems. Low SAPS (sulphated ash phosphorus and sulphur) additive technology ensure optimum performance of emission control equipment including particulate filters, at the same time providing long term emission system protection, ensuring a high level of continuous pollution control thereby minimising environmental damage.

### Applications:

Fully Synthetic 5W/30 is particularly formulated to meet the performance demands and requirements of the most up to date BMW Longlife-04 specification and Daimler Chrysler MB 229.31 which encompass high standards of emission control under all conditions including vigorous high speed styles of driving.

### Health & Safety: (Group 1)

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

### Availability:

Fully Synthetic 5W/30 is available in bulk road tanker deliveries, 205 litre barrels, and 25 litre drums.

### Benefits:

- Effective environmental protection
- Ensures lubricant performance over extended drain intervals
- Effective fuel efficiency
- Very high standards of engine cleanliness
- Exceptional long term anti-wear and oxidation stability
- Excellent high and low temperature performance
- Exceptional long term additive response

### Product Specification:

API	SM
ACEA	A3/B4-04, C3-04, A3/B4-02
BMW	Longlife-04
MB	229.31

### Typical Test Data:

KV @ 100°C (cSt)	11.8
KV @ 40°C (cSt)	72.3
Viscosity index	160
CCS @ -30°C (cP)	6080
Sulphated ash (% w/w)	0.773
TBN (mg KOH / g)	7.8
Flash Point COC (°C)	212

## TECHNICAL DATA SHEETS



## SEMI-SYNTHETIC

## 5W/30

Semi-synthetic motor oil recommended for Zetec engines

Product code: M113

**Product Description:**

Semi-synthetic, fuel-efficient multigrade engine oil meeting the latest API classifications.

Engine design has changed rapidly over recent years. Increased output from smaller units coupled with reduced engine oil sump capacity has demanded more from the lubricant. Many engine manufactures are using semi-synthetic formulations as their initial fill. Semi-Synthetic 5W/30 is manufactured from a balanced blend of top quality mineral and synthetic base stocks, producing high quality engine oil with the properties of semi-synthetic technology. Its naturally higher lubricity offers lower internal friction for reduced engine wear. Its low viscosity offers improved flow rates and hydraulic tappet performance during cold start and engine idling, a problem with many higher viscosity oils. Semi-Synthetic 5W/30 offers excellent stay in grade performance for today's modern multi-valve engines.

**Benefits:**

- Meets and surpasses the earlier specifications of WSS M2C 912 A1 and 913 A
- Extended drain
- Excellent low temperature stability for improved flow rates
- Improved fuel efficiency
- Semi-synthetic formulation

**Availability:**

Semi-Synthetic 5W/30 is available in bulk road tanker deliveries, 205 litre barrels, 25 litre drums, and in 5 litre small packs.

**Applications:**

Semi-Synthetic 5W/30 is suitable for normally aspirated and turbocharged, petrol and diesel vehicles, particularly modern vehicles. It meets the latest Ford WSS M2C 913-B requirement and is suitable for Zetec and Duratorq engines. It is miscible with all synthetic and mineral based engine oils.

**Product Specification:**

API	SL/SJ/CF
ACEA	A1,B1
Ford	WSS M2C 913-B
BMW	LL-FE-01
Opel	Pass
ILSAC	GF-2

**Typical Test Data:**

SG @ 15.6°C	0.875
KV @ 100°C (cSt)	11.40
KV @ 40°C (cSt)	69.02
VI	159
Flash Point COC (°C)	225
Pour Point (°C)	-38
TBN (mg KOH / g)	8.89

**Health & Safety: (Group 1)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers



## TECNOL SEMI-SYN 10W/40

Semi-synthetic passenger car engine oil

### **Product Description:**

Semi-synthetic, fuel-efficient multigrade engine oil meeting the latest API classifications.

Engine design has changed rapidly over recent years. Increased output from smaller units coupled with reduced engine oil sump capacity has demanded more from the lubricant. Many engine manufactures are using semi-synthetic formulations as their initial fill.

Tecnol Semi-Synthetic 10W/40 is manufactured from a balanced blend of top quality mineral and synthetic base stocks, producing a high quality engine oil with the properties of semi-synthetic technology. Its naturally higher lubricity offers lower internal friction reducing engine wear. It provides excellent stay in grade performance for today's modern engines.

### **Benefits:**

- Semi-synthetic formulation
- Stay in grade properties
- Excellent high and low temperature stability
- Fuel efficient grade
- Improved oil consumption and emissions
- Superior performance over standard mineral based oils

### **Applications:**

Tecnol Semi-Synthetic 10W/40 is suitable for normally aspirated and turbocharged, highly stressed diesel engines and petrol engines in passenger cars and light commercials particularly modern vehicles. It is miscible with all synthetic and mineral based engine oils.

### **Product Specification:**

API	SL/CF
ACEA	A3,B3,B4
VW	505
MB	229.1

### **Typical Test Data:**

SG @ 15.6°C	0.888
KV @ 100°C (cSt)	13.66
KV @ 40°C (cSt)	87.53
VI	160
Flash Point COC (°C)	224
Pour Point (°C)	-33
TBN (mg KOH / g)	9.18

### **Health & Safety: (Group 1)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

### **Availability:**

Tecnol Semi-Synthetic 10W/40 is available in bulk road tanker deliveries, 205 litre barrels , 25 litre drums, and in 5 litre & 1 litre small packs.



## POWERMAX MONOGRADES

Mineral oil based engine oils

Product code: Refer to table below

### Product Description:

These are a range of monograde diesel engine oils. The Powermax range of engine oils are manufactured from high quality base oils and carefully selected additives. They are blended to varying viscosities for a wide range of applications.

### Benefits

- Cost effective
- Suitable for mixed fleet operations
- Available in varying viscosities

### Applications:

The Powermax range are suitable for normally aspirated and turbo charged diesel engines and petrol engines in passenger cars, light and heavy commercials, plant, compressor, industrial and certain hydraulic and transmission applications and in certain horticultural applications.

Please check viscosity requirement. They are miscible with all synthetic and mineral based engine oils.

### Typical Test Data:

Product	10W	20W	20W20	30W	40W	50W
Product Code	M012	M013	M321	M014	M018	M019
Specific Gravity @ 15.6°C	0.880	0.884	0.885	0.887	0.888	0.890
KV @ 40°C (cSt)	35.71	60.0	59.02	98.02	142.0	234.0
KV @ 100°C (cSt)	5.81	8.13	8.08	11.05	14.8	20.57
Viscosity Index	103	103	104	105	104	103
Flash Pt (COC °C)	212	215	217	219	220	225
TBN (mg KOH/g)	5.08	5.12	5.13	5.09	5.07	5.11

### Product Specification:

API	CD/SF
CCMC	G2/D2
Caterpillar	Series 3
Allison	C-3
Military Spec	Mil-L-2104C

### Health & Safety: (Group 1)

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

### Availability:

The Powermax range is available in bulk road tanker deliveries, 205 litre barrels and 25 litre drums.

## TECHNICAL DATA SHEETS

**Tecnol****Technical Data Sheet**

Tecnol SAE Oils are a range of engine oils manufactured from solvent refined paraffinic base oils blended with anti oxidant & corrosion inhibitors and suitable for older engines where modern additive packs could have a detrimental effect on engine components.

**Performance Level:**

API CA,SB Mil-L-2104A

**Typical Properties:**

	<b>10w</b>	<b>SAE 20w</b>	<b>30</b>	<b>40</b>
SAE Viscosity Grade	10w	20w	30	40
Specific Gravity @: 15.oC	0.873	0.878	0.885	0.892
Kinematic Viscosity mm <sup>2</sup> /S				
@40oC	37.0	61.0	92.0	134.0
@100oC	6.1	8.2	10.7	13.9
Viscosity Index (VI)	100	98	95	95
Pour Point oC	-25	-22	-19	-19
Total Base Number mg KOH/gm	7.5	7.5	7.5	7.5

TECHNICAL DATA SHEETS



**Biodegradeable Marine Two Stroke**

An excellent quality Two Stroke oil formulated to exceed the demands of the U.S.A. National Marine Manufacturers Association NMMA TC-W3 recertified test sequence requirements, for high performance water cooled Outboard Two Stroke spark ignition.

The stringent performance levels demanded of this specification supercede those of NMMA TCW2, the former boating industry association (BIA) TC-W, and the former API TSC-4 and APITD, and can be used where these classifications are specified.

Biodegradeable Two Stroke is ideal for use in Marine applications in high output engines ranging from 15-hp up to and exceeding 70-hp, where dilution ratios of 50:1 are normally specified and where environmental conditions call for extremely low and controlled pollution levels. It is manufactured from a special blend of highly solvent refined mineral oils, balanced proportionately with Synthetic based products in order to enhance performance, and an approved High performance additive system. This product can be considered to be biodegradable and demonstrates outstanding response in all requirements of NMMA TC-W3 and the critical performance of all aspects of Two Stroke engine lubrication.

It provides excellent results in the following areas of performance as required by the NMMA TCW3 recertified test procedure:-

DETERGENCY AND LUBRICITY	MERCURY 15hp
DETERGENCY AND RING STICKING	OMC 70hp
PRE IGNITION	YAMAHA CE 50
LUBRICITY	YAMAHA CE 50
MISCIBILITY	TC-W3
RUST	TC-W3
FILTERABILITY	TC-W3
FLUIDITY	BROOKFIELD
ADDITIVE DETERGENCY	
GENERAL PERFORMANCE	OMC 40hp

Biodegradeable Marine Two Stroke because of its Broad Spectrum Performance, can be used in the Majority of Two Stroke applications, and could therefore said to be a Multi-Purpose Two Stroke Oil. In all cases the engine manufacturers Fuel/Oil Ratios should be adhered to, in PREMIX applications. This product can be used as normal in AUTOLUBE systems.

**TYPICAL PHYSICAL PROPERTIES**

<b>Kinematic Viscosity @ 100°C</b>	<b>- 9.2</b>
<b>Kinematic Viscosity @ 40°C</b>	<b>- 55</b>
<b>Flash Point (COC)°C</b>	<b>- 140</b>
<b>Colour</b>	<b>- Blue</b>
<b>Density @ 15°C</b>	<b>- 0.898</b>

**Health & Safety Please refer to the relevant health & safety data sheet, a copy of which is freely available to all of our customers**



<b>Tecnol</b>	<b>Technical Data Sheet</b>
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## TWO STROKE OIL

### DESCRIPTION

A low ash two stroke petrol engine oil manufactured from solvent refined paraffinic base oils blended with specially selected low ash detergent/dispersant additives to achieve the required performance.

### ADVANTAGES

Excellent deposit and wear control.  
 Reduces ring sticking and piston scuffing.  
 Readily miscible in petrol.(self mixing).

### APPLICATION :

Recommended for air cooled two stroke engines requiring this performance level and for use in water cooled two stroke engines not prone to pre-ignition.

### PERFORMANCE LEVEL

API TA, TB & TC (previously known as TSC 1, 2 & 3)

### TYPICAL PROPERTIES

SAE Viscosity Grade	30
Specific Gravity at 16 oC	0.879
Kinematic Viscosity mm <sup>2</sup> /S	
at 40 oC	58
at 100 oC	8.2
Viscosity Index (VI)	102
Pour Point oC	-20
Total Base Number (TBN) mg KOH/gm	1.7
Sulphated Ash % wt	0.19



## POWERTRANS EP GRADES

Mineral oil based GL-4 gear oils  
Product code: Refer to table below

### **Product Description:**

PowerTrans EP grades are universal extreme pressure gear oils meeting the API performance level GL4.

PowerTrans EP grades are manufactured from high quality base oils and high levels of extreme pressure (EP) additives to provide a lubricant with outstanding anti wear protection. It is designed to cope with the increasing demands of today's motoring conditions, which include high shock/load, high/torque, and high/speed service conditions.

### **Benefits:**

- Excellent oxidation stability
- Outstanding low and high temperature performance
- Guarantees the correct function of synchromesh gearboxes
- Long service life
- Good protection against rust and corrosion
- High level of wear protection

### **Application**

PowerTrans EP gear oils are suitable for the majority of manual gearboxes, including synchromesh, fitted to automotive vehicles, industrial and commercial vehicles.

### **Product Specification:**

API	GL-4
Military	Mil-L-2105

### **Typical Test Data:**

	EP	80W90	85W140
Product code	G008	G012	
SG @ 15.6°C	0.890	0.901	
KV @ 100°C (cSt)	16.41	33.02	
KV @ 40°C (cSt)	158.07	437.9	
VI	109	110	
Flash Point COC (°C)	220	242	
Pour Point (°C)	-13	-9	

### **Health & Safety: (Group 2)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

### **Availability:**

The PowerTrans EP grades are available in bulk road tanker deliveries, 205 litre barrels and 25 litre drums. PowerTrans EP 80W90 is also available in 5 litre & 1 litre small packs.



## TECHNICAL DATA SHEETS



## POWERTRANS UTTO

Mineral oil based Universal Tractor  
Transmission Oil  
Product code: A006

### Product Description:

Powertrans UTTO is a modern Universal Tractor Transmission Oil for transmissions, hydraulics and final drives.

The very latest agricultural machinery in today's intensive farming environment needs the protection of a high quality lubricant. Multi purpose oils are a good compromise but many manufacturers have realised the benefits when using lubricants specifically designed.

Powertrans UTTO is blended from carefully selected base oils and the very latest in additive technology to produce a specialised lubricant to meet the latest and most severe transmission requirements. It meets the demands of most agricultural transmission specifications and greatly reduces wet brake noise and chatter. It offers outstanding anti wear performance under the most severe conditions.

### Benefits:

- Outstanding wet brake performance
- Meets the very latest OEM requirements
- Helps reduce wet brake noise and chatter
- Suitable for most Agricultural Machinery requirements
- Reduced the need to carry various different types of fluid in stock

### Application

Powertrans UTTO is suitable for most modern tractor transmissions, hydraulics and final drive systems.

### Product Specification:

Case	MS 1205, 1206, 1207, 1210 and B6
John Deere	J20A, B, C, and J20D
Ford	M2C-86A/B/C/D and 134D
Massey Ferguson	M1135, M1141, M1143 & M1145
	Allison
	C3 and C4
Caterpillar	TO-2
White Farm	Q-1705, Q-1766, Q-1802, Q-1826
Kubota	Pass
Deutz Allis	Pass
Fiat	Pass
Renault	Pass
Volvo VME WB-101	Pass

### Typical Test Data:

SG	@	15.6°C	0.883
KV	@	100°C	(cSt) 9.74
KV	@	40°C	(cSt) 65.61
VI			131
Flash Point COC (°C)			224
Pour Point (°C)			-38
TBN	(mg KOH / g)		6.77
Colour			Red
Appearance			Clear & bright

### Health & Safety: (Group 1)

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers.



## ATF DEXRON II UNIVERSAL

Mineral oil based transmission oil  
Product code: A009

### **Product Description:**

ATF Dexron II is a multipurpose automatic transmission fluid for automotive vehicles.

The automatic transmission is one of the most complicated mechanisms in modern automotive engineering and consequently requires complex fluids for efficient operation.

ATF Dexron II is manufactured from high quality solvent refined base oils, specially selected additives and friction modifiers to produce a lubricant with excellent oxidation stability and frictional characteristics.

### **Benefits:**

- Suitable for all the majority of automatic transmission requirements
- Can be used as a power steering fluid
- Protection against wear
- Low foaming tendencies
- Reduced gums and lacquers
- High temperature stability

### **Application:**

ATF Dexron II is recommended for the majority of automatic transmissions and power steering requirements in cars, vans, trucks, agricultural and industrial machines.

### **Product Specifications:**

General Motors	Dexron IID
Ford	Mercon M2C-166H M2C- 138CJ
Allison	C-4
Caterpillar	T0-2
Mercedes Benz	236.1
ZF	TE-ML- 09,11,14

### **Typical Test Data:**

SG @ 15.6°C	0.870
KV @ 100°C (cSt)	6.90
Flash Point COC (°C)	198
Appearance	Red

### **Health & Safety: (Group 2A)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers.

### **Availability:**

ATF Dexron II is available in bulk road tanker deliveries, 205 litre barrels, 25 litre drums, and in 5 and 1 litre small packs.



## MILKING MACHINE OIL

Mineral oil based machine oil  
Product code: L046

### **Product Description:**

Milking Machine Oil is a high quality mineral oil, which has been selected especially for its thermal stability, low vapour pressure and good thermal conductivity. These characteristics ensure excellent service life.

### **Benefits:**

- Light coloured
- Excellent chemical and thermal stability
- Good lubricity
- Good corrosion protection

### **Typical Test Data:**

SG @ 15.6°C	0.889
KV @ 40°C (cSt)	100.03
KV @ 100°C (cSt)	11.4
Flash Pt (COC °C)	228
Pour Pt	-12
Acidity (mg KOH/g)	0.05

### **Application:**

Milking Machine Oil is recommended for use in all dairy type milking machines in either pressurised or oil bath applications and the oil's comparatively low viscosity ensures good circulation even in cold temperatures.

### **Health & Safety: (Group 3)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

### **Availability:**

Milking Machine Oil is available in bulk road tanker deliveries, 205 litre barrels and 25 litre drums.

TECHNICAL DATA SHEETS



## CHAINSAW GRADES

Mineral oil based chainsaw oils  
Product code: Refer to table below

### **Product Description:**

These grades are high viscosity, tacky chainsaw lubricants.

Tecnol Chainsaw Oils have been formulated using high viscosity base oils and special tacky modifiers, which help reduce wear on all chainsaw blades.

### **Benefits:**

- Standard and heavy duty grades available
- Excellent non fling characteristics
- Good oxidation stability
- Good low temperature stability

### **Application:**

Tecnol Chainsaw Oils are suitable in all types of pressure fed chainsaws.

### **Health & Safety: (Group 3D)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

### **Typical Test Data:**

<b>Chainsaw</b>	<b>Standard</b>	<b>Heavy</b>
<b>Product code</b>	<b>L047</b>	<b>L048</b>
ISO	100	220
SG @ 15.6°C	0.884	0.890
KV @40°C (cSt)	97.01	214.04
KV @100°C (cSt)	11.02	18.71
VI	98	97
Flash Point (°C)	227	232
Appearance	Amber	Amber

### **Availability:**

Chainsaw oils are available in bulk road tanker deliveries, 205 litre barrels and 25 litre drums



## **UNIVERSAL BRAKE FLUID DOT 4 Universal Brake Fluid**

### **Description**

#### **UNIVERSAL BRAKE FLUID**

is a high quality product meeting all requirements for use in European, US, Japanese and other cars, commercial vehicles and motorcycles for which nonpetroleum based fluid is specified.

### **Application**

Suitable for use in all motor vehicles for which nonpetroleum based fluid is specified. Note: Some vehicles (e.g. some Citroens and Rolls Royces) require a petroleum based fluid (LHM). Refer to vehicle manufacturer's handbook before selection.

### **Specifications**

With a minimum boiling point of 230°C (446°F), UNIVERSAL BRAKE FLUID meets the requirements of the following current specifications:

- FMVSS 116 DOT 3 and DOT 4
- SAE J 1703
- ISO 4925
- JIS K 2233 Types 3 & 4
- This fluid has a minimum wet boiling point (expected boiling point after two years in service) of 155°C (311°F).

### **Advantages / Benefits**

- DOT 4 quality - these fluids retain their boiling point characteristics to a greater degree than DOT 3 fluids. This affords greater resistance to vaporisation under heavy braking which could result in spongy brake action or even complete loss of brakes due to vapour lock.
- Mixes safely with all fluids meeting the current standards FMVSS116 DOT 5.1, DOT 4 and DOT 3, ISO 4925 and SAE J 1703.



## Product Information

# LHM PLUS

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### Description

LHM Plus is a green, mineral based hydraulic fluid specially developed for use in Citroën cars. In these vehicles the hydro-pneumatic suspension and brakes use a common fluid, the suspension being pressurised by an engine driven pump. The pressure delivered by the pump is in excess of 150 bar (2175 psi) and therefore this specialised fluid must be used at all times to cope with these arduous conditions. LHM Plus has special additives to protect against pump wear and to give excellent rust and corrosion protection. The high viscosity index of this product gives good flow rates throughout the system at extremes of temperature. Special additives in the formulation protect against the common problem of sludge formation and consequential filter blocking.

LHM Plus is fully compatible with all system parts and will not cause deterioration of the internal parts, seals or hoses.

### Applications

This mineral based fluid is designed for use in the hydraulic systems of Citroën cars (see warning). LHM Plus is also suitable for top-up and re-fill of brake systems, power steering systems and self-levelling suspension systems where a mineral oil based product of this type has been specified. Always observe manufacturer's recommendations regarding top up, fluid renewal after the running in period and service intervals thereafter. Clean filters when renewing the fluid as recommended. Keep the fluid carefully sealed in the original containers.

### Warning

Suitable for use only in hydraulic systems using a green mineral oil. Please be sure to check the vehicle handbook. Only fill this fluid into Citroën hydraulic reservoirs painted green. Never use this fluid in any reservoirs painted black. Not to be used in vehicles using vegetable based fluid or synthetic hydraulic oil.

### Performance Levels

ISO 7308  
PSA B71 2710  
Ford ESN M6C 59A

### Physical Characteristics

Appearance / Colour	Clear, Bright, Green.
Kinematic Viscosity at 100 °C, cSt	6.4
Kinematic Viscosity at -40 °C, cSt	1050
Viscosity Index	345
Flash Point (Closed) °C	120
Shear Stability, % viscosity loss at 100 °C	8
Anti Wear (4 ball test) scar diameter in mm	<1.0
Corrosion Test FTMS 5308.6 (weight loss mg/cm <sup>2</sup> )	<0.05



## Technical Data

### MEG Antifreeze BS6580

Tecnol MEG BS6580 Antifreeze is a nitrite, amine, silicate, borate and phosphate free ethylene glycol based engine coolant concentrate, which meets the requirements of British Standard BS6580:1992.

This ready mixed aqueous solution will function both as antifreeze and coolant and impart very good corrosion protection to all cooling system metals and alloys found in internal combustion engines.

**Chemical Nature** Ethylene glycol with inhibitors

**Appearance** Clear Blue Liquid

#### Technical Data

Specific gravity 25/25°C 1.120 – 1.140 ASTM D 941

Boiling Point, °C >140 ASTM D 1120

Flash Point, °C >140 DIN ISO 2592

Water Content, % Max.6 ASTM D 1123

Miscibility with Water Free miscible

Hard water stability Stable, no

precipitation

Freezing Point

50% in water Below -34°C ASTM D 1177

33.3% in water Below -18°C ASTM D 1177

pH-value 33.3% vol. in water 7.7 – 8.5 ASTM D 1287

Weight change in mg/cm<sup>2</sup>/week  
BS6580 Antifreeze max 1

**BS6580 Coolant** 0.3

#### COOLANT REPLACEMENT

It is recommended to replace BS 6580 engine coolant every year.

#### HANDLING

The usual precautions for handling chemicals, together with the information and advice contained in our Safety Data Sheet, should be observed.



**Tecnol**

**Technical Data Sheet**

## **Ready to Use Antifreeze Coolant**

Tecnol Ready to Use BS6580 Coolant is a nitrite, amine, silicate, borate and phosphate free ethylene glycol based engine coolant concentrate, which meets the requirements of British Standard BS6580:1992.

This ready mixed aqueous solution will function both as antifreeze and coolant and impart very good corrosion protection to all cooling system metals and alloys found in internal combustion engines.

**Chemical Nature** Ethylene glycol with inhibitors

**Appearance** Clear Blue Liquid

### **Technical Data**

Specific gravity 25/25°C 1.060 – 1.070 ASTM D 941

Boiling Point, °C >125 ASTM D 1120

Flash Point, °C >190 DIN ISO 2592

Water Content,% Max.50 ASTM D 1123

Miscibility with Water Free miscible

Hard water stability Stable, no precipitation

Freezing Point Below –34°C ASTM D 1177

pH-value 33.3% vol. in water 7.7 – 8.5 ASTM D 1287

Weight change in mg/cm<sup>2</sup>/week

**BS6580 Coolant** 0.3

### **COOLANT REPLACEMENT**

It is recommended to replace BS 6580 engine coolant every year.

### **HANDLING**

The usual precautions for handling chemicals, together with the information and advice contained in our Safety Data Sheet, should be observed.





## Hochdruckfette EP - Serie

**KAJO-Hochdruckfette der EP - Serie** werden auf der Basis von hochwertigen Grundölen unter Verwendung von Lithiumseifen (Li-12-Hydroxystearat) als Verdicker hergestellt. Hierdurch besitzen sie eine hervorragende Walkstabilität. Des Weiteren enthalten **KAJO-Hochdruckfette der EP - Serie** Zusätze zur Verbesserung des Rost- und Korrosionsschutzverhaltens.

**Praxis-Vorteile:**

Schmierfette für den universellen Gebrauch in der Industrie und im KFZ-Bereich. Bis auf wenige

**Kennwerte:**

Ausnahmen sind **KAJO-Hochdruckfette der EP - Serie** für die meisten Anwendungsfälle sehr gut geeignet. Sie finden Verwendung als Gleit- und Wälzlagerfett an Fettschmierstellen von Kraftfahrzeugen, Geräten, Maschinen, Förderanlagen, Baumaschinen usw.

**KAJO-Hochdruckfett EP 1 ist praxisbewährt und erprobt in VOGEL-Zentralschmieranlagen.**

Eigenschaft	EP 1	EP 2	EP 3	Einheit	DIN / ISO
Beschaffenheit	weich, sehr geschmeidig	weich, sehr geschmeidig	fester, sehr geschmeidig		
Farbe	naturfarben	naturfarben	naturfarben		
Verdicker	Li-Seife	Li-Seife	Li-Seife		
Tropfpunkt	> 180	>180	> 180	°C	DIN ISO 2176
Walkpenetration	310 – 340	265-295	220-250	0,1 mm	DIN ISO 2137
Penetration nach verlängertem Walken*: - 100.000 DH: - 500.000 DH: - 1.000.000 DH:	335 368 390	288 295 300	235 248 265	1/10 mm 1/10 mm 1/10 mm	DIN ISO 2137
NLGI-Klasse	1	2	3		DIN 51 818
Verhalten gegen Wasser 5 h / +90 °C	0/1 - 90	0/1 – 90	0/1 – 90		DIN 51 807-1
Emcor-Test Korrosionsgrad	1	1	1	Bewertungsstufe	DIN 51 802
Kupfer-Korrosion: 120 °C / 3 h	1B	1B	1B		DIN 51 811
Oelabscheidung bei 40 °C: 18 h: 7 d:	0,50 2,40	0,45 1,60	0,25 0,90	% %	DIN 51 817
Prüfung im Shell-VKA: Gutlast: Schweißlast:	2000 2200	2000 2200	2000 2200	N N	DIN 51 530
Glührückstand als Oxidasche	1,2	1,2	1,2	Gew.-%	EN ISO 6245
Gebrauchstemperatur kurzfristig	-30 bis +120 bis +130	-30 bis +120 bis +130	-30 bis +120 bis +130	°C °C	
Kennzeichnung	KP 1 k-30	KP 2 k-30	KP 3 k-30		DIN 51 502

\*durchschnittliche Werte

ergänzt: 09.07.2009/B.L./T.

Alle Kenndaten sind Mittelwerte und unterliegen produktionsbedingten Schwankungen. Änderungen bleiben vorbehalten. Für die angegebenen Kennwerte gelten Vergleichbarkeit und Wiederholbarkeit des jeweiligen Prüfverfahrens.



## Longlife Grease LZR – Series

**KAJO-Longlife Greases LZR** are new greases for roller and friction bearings, that are made from high quality basic oils by using lithium soaps as thickening agents. It shows an extraordinary oxidation resistance. **KAJO-Longlife Greases LZR** are water resistant, adhesive, can be loaded with pressure and is protective against corrosion. These properties, in connection with high work resistance, very good abrasion rating and particularly strong adhesiveness, characterise this lubricant as particularly appropriate for lubrication under difficult

operating conditions and at highly loaded roller and friction bearings.

**Practical advantages:**

**KAJO-Longlife Greases LZR** can be used universally as long-term greases. They are recommended for lubrication of vehicles, industrial machinery and for all machines and devices in the field of construction, stone and earth.

**Ratings:**

Properties	LZR 0	LZR 00	LZR 2	Unit	DIN / ISO
Nature	smooth, transparent, long-fibrous	smooth, transparent, long-fibrous	smooth, transparent, long-fibrous		
Colour	natural-colored	natural-colored	blue		
Working temperature short-term	-30 up to +120 up to +140	-30 up to +120 up to +140	-30 up to +120 up to +140	°C °C	DIN 51 825
Dropping point	+185	+185	+185	°C	DIN ISO 2176
Worked penetration	355 - 385	400 - 430	265 - 295	0,1 mm	DIN ISO 2137
Work resistance Decrease in penetration after - 10.000 double lifts: - 100.000 double lifts:	below 15 below 25	below 15 below 25	below 15 below 25	1/10 mm 1/10 mm	DIN ISO 2137
NLGI-class	0	00	2		DIN 51 818
Timken-load	55	55	55	lbs	ASTM D 2509
Behaviour towards water 5 h / +90 °C	1	1	1	Evaluation stage	DIN 51 807-1
Corrosion protection Emcor-Test	0	0	0	Corrosion degree	DIN 51 802
Oxidation stability Pressure decrease after 100 h / 99 °C	<0,3	<0,3	<0,3	bar	DIN 51 808
Ground oil viscosity V <sub>40</sub> V <sub>100</sub>	185 20,2	165 18	217,0 24,20	mm <sup>2</sup> /s mm <sup>2</sup> /s	DIN 51 562
VKA welding load	2.400	2.200	2.600	N	DIN 51 350
Designation	KP 0 k-30	KP 00 k-30	KP 2 k-30		DIN 51 502

All ratings are average values and are subject to production-related variations.

Date of revision: 29.09.2006/Gro./Ba

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## Extreme Pressure Grease with MoS<sub>2</sub>

**KAJO Extreme Pressure Grease with MoS<sub>2</sub>** has the same basic structure as our KAJO Multipurpose Grease KL 2 k, plus the solely mechanically working solid lubricant molybdenum disulphate (MoS<sub>2</sub>). Over a period of time this deposits at the slide faces and forms neutral lubricating layers in the shape of mesh effects. Because of this **KAJO Extreme Pressure Grease with MoS<sub>2</sub>** has distinctive friction-reducing properties and so-called dry running properties.

### *Practical advantage:*

**KAJO Extreme Pressure Grease with MoS<sub>2</sub>** is mainly used for lubricating extreme pressure and shock loaded bearings with relatively slow sliding movements. Thus, its application is recommended for friction and roller bearings of all types during aggravated operating conditions.

### *Ratings:*

Characteristics	Value	Unit	DIN / ISO
Nature	semisolid		
Colour	blackgrey		
Work temperature short-term	-30 up to +120 up to +130	°C °C	DIN 51 825
Dropping point	+180	°C	DIN ISO 2176
Ignition residue as oxide ash	3,5	Weight-%	EN ISO 6245
Water content	traces		DIN 51 777
NLGI-class	2		DIN 51 818
Worked penetration	265-295	0,1 mm	
Behaviour agains water 5 h / +90 °C	practically stable		DIN 51 807-1
Pressure carrying capacity VKA value	2800 - 3000	N	DIN 51 350 T4
Designation	KPF 2 k-30		DIN 51 502

Revised: 04.03.2005/Gr./T.

All ratings are average values and are subject to production-related variations.

# Product information

Nr. 634



## Roller Bearing Grease LC 002

**KAJO-Roller Bearing Grease LC 002** is a natural coloured lithium complex soap lubricating grease, based on mineral oil.

### **Practical advantages:**

**KAJO-Roller Bearing Grease LC 002** is appropriate for lubricating highly pressure loaded roller and friction bearings at increased bearing temperatures. It is particularly recommended for lubricating the wheel bearings of utility vehicles and for high speed car wheeling bearings.

- work stable
- oxidation resistant
- water resistant
- good corrosion protection properties
- high thermal load
- high pressure absorption
- good adhesiveness

**Releases KAJO-Roller Bearing Grease LC 002**

- MAN 284 Li-H 2

### **Properties:**

### **Ratings:**

Properties	Value	Unit	DIN / ISO
NLGI-Class	2		DIN 51818
Working temperature with permanent lubrication Admissible temp. peaks for short periods With constant temperatures above 150° C the devices must be re-lubricated in shorter intervals, depending on the thermal load	-35 up to +160 + 200	°C °C	DIN 51825
Dropping point	> 260	°C	DIN ISO 2176
Worked penetration	265 – 295	0,1 mm	DIN ISO 2137
Water resistance	1		DIN 51807 T1
Corrosion protection EMCOR	Corrosion degree 0		DIN 51802
Corrosion effect on copper at 150° C	Corrosion degree 1		EN ISO 2160
Soap base	lithium complex		DIN 51811
Base oil viscosity at 40° C	approx. 110	mm <sup>2</sup> /s	DIN 51562
Oxidation resistance Pressure drop after 100 h/99° C	< 0,3	bar	DIN 51808
Timken-Test (O.K.-load)	approx. 50	lb	ASTMD-2509
Mech.-dyn. test <b>FE 9</b> Lubricating grease usable life at 150° C	F <sub>50</sub> > 150 h		DIN 51821-02-A/1500/6000-150
Four-ball O.K. load	2200	N	DIN 51350 T4
Four-ball welding load	2400	N	DIN 51350 T4
Oil separation at 40° C 18 h 7 d	0,5 3,2	% %	DIN 51817
Marking	KP2P-35		DIN 51502

Revised: 20.03.2006/Pos./B.L./T.

- All ratings are average values and are subject to production-related variations -

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TECHNICAL DATA SHEET



## EP2 GREASE

A quality grease for use in anti-friction & plain bearings subject to high load  
Product code: Z005

### **Product Description:**

EP2 is a premium quality, multi purpose lithium soap grease.

EP2 is manufactured from lithium soaps and extreme pressure additives. It is suitable for use in all anti-friction and plain bearings subjected to high load conditions.

### **Benefits:**

- Good mechanical stability
- Good oxidation stability
- Good load carrying capabilities
- Good pump ability
- Good corrosion protection
- Compatible with other greases

### **Application:**

EP2 is recommended for use in highly loaded industrial and automotive applications such as wheel bearings, pump bearings etc. It is suitable for use in high pressure greasing equipment.

### **Typical Test Data:**

Colour	Green/Brown
Appearance	Medium Fibre
NLGI Classification	2
Soap Base	Lithium
Un-worked Penetration (IP50)	265-295
Worked Penetration (IP50)	265-295
Operating temperature °C	-20 to 140
Drop Point °C (IP132)	180 min
Water Washout @38°C	5% max
Timken OK Load Kg	20

### **Health & Safety: (Group 10)**

Please refer to the relevant health and safety data sheet, a copy of which is freely available to all of our customers

### **Availability:**

EP2 is available in 180 kg, 50 kg, 25 kg, 12.5 kg, and 3 kg package sizes.

# LMP OILS, BATTERIES & FILTERS

## TECHNICAL DATA SHEET



### LITHIUM COMPLEX EP 2

Our Lithium Complex EP 2 is a multi-purpose Extreme Pressure Lithium Complex grease containing corrosion and oxidation inhibitors, E.P. and anti-wear additives. This grease is for use in the temperature range  $-20^{\circ}\text{C}$  to  $165^{\circ}\text{C}$ , and is suitable for the lubrication of heavily loaded plain and rolling-element bearings, including those subjected to shock loading. An ideal grease for use in many industrial and automotive applications

### BENEFITS

Exceptional mechanical stability extends relubrication intervals

Excellent oxidation stability provides lasting lubrication at high temperatures

Excellent EP and anti-wear performance

Good corrosion resistance protects components operating in wet conditions

### TECHNICAL DATA

#### CHARACTERISTIC SPECIFICATION

Colour	-	Red
Texture	-	Smooth
Soap type	-	Lithium Complex
Penetration (X60)( IP 50)	-	265-295
Drop point (IP 32)	-	245 oC Min
Roll stability (ASTM D1831) modified (90g/100hr/ambient)	-	310 Max
Oxidation Stability after 500 hours (IP 42)	-	10 psi Max
Timken OK load	-	45 lbs Mm
Operating temperature range-typical	-	-20 to +165 deg. C
Base oil Viscosity at 40 deg. C	-	150 cSt Min.

Health & Safety Please refer to the relevant health & safety data sheet, a copy of which is freely available to all of our customers

### Group 1

TECHNICAL DATA SHEET



**L2M GREASE**

Our Lithium L2M is a premium quality multi-purpose grease for use in all anti-friction and plain bearings subjected to high load conditions. The incorporation of molybdenum disulphide imparts a high degree of wear protection against load, shock loading and dusty environments. Used extensively for applications throughout industry and the automotive sector.

**FEATURES**

- Excellent extreme pressure and anti-wear performance
- High degree of corrosion protection
- Highly versatile multi purpose grease

**METHOD OF APPLICATION**

L2M can be applied manually, or by using a standard grease gun (400gm cartridges available), or via a central lubricating system capable of pumping an NLGI No.2 grease.

As with all greases used for the first time, check compatibility with the grease applied previously and if necessary purge bearings prior to application. Likewise, as a general rule, take care not to over-lubricate and apply the quantity of grease recommended by the bearing manufacturer.

**TYPICAL PHYSICAL CHARACTERISTICS**

Appearance	-	Smooth grease
Colour	-	Grey / Black
NLGI classification	-	2
Thickener	-	Lithium soap
Base oil	-	Blend of solvent refined mineral oil
Base oil viscosity @ 40 C (IP71) cSt	-	180
Worked penetration (IP50)	-	265 to 295
Dropping point (IP132) C	-	185 min.
Oil separation (IP121) %	-	5 max.
Copper corrosion (IP112)	-	Pass
Resistance to corrosion Emscor (IP 220)	-	0:0
Water washout (ASTM D1264) @ 39 C %	-	3
Four Ball Weld Load (IP 239) kgs	-	315
Timken OK load (IP 326) lbs	-	50
Oxidation stability @ 100 C (IP142)		
Pressure drop after 100 hrs psi	-	4
400 hrs psi	-	14
Molybdenum disulphide content %	-	2
Operating temperature range	-	-20 C to +140 C

Health & Safety Please refer to the relevant health & safety data sheet, a copy of which is freely available to all of our customers

## LMP OILS, BATTERIES & FILTERS

### TECHNICAL DATA SHEET



#### **L00EP grease**

A premium quality semi-fluid grease designed for centralised lubrication systems. Suitable for anti-friction and plain bearings subjected to high load conditions. LITHIUM 00EP can also be used for gearboxes designed to operate with a semi-fluid slumping grease.

#### **FEATURES**

- Excellent extreme pressure and anti-wear performance
- High degree of corrosion protection
- Highly versatile semi-fluid grease for centralised lubrication

#### **METHOD OF APPLICATION**

LITHIUM 00EP can be applied manually, or via a centralised lubricating system capable of pumping an NLGI No. 00 grease.

As with all greases used for the first time, check compatibility with the grease applied previously and if necessary purge bearings prior to application. Likewise, as a general rule, take care not to over-lubricate and apply the quantity of grease recommended by the bearing manufacturer.

#### **TYPICAL PHYSICAL CHARACTERISTICS**

Appearance	- Smooth semi-fluid grease
Colour	- Dark brown
NLGI classification	- 00
Thickener	- Lithium soap
Base oil	- Blend of solvent refined mineral oil
Base oil viscosity @ 40°C (IP71) cSt	- 180
Worked penetration (IP50)	- 400 to 430
Copper corrosion (IP112)	- Pass
Resistance to corrosion EMCOR (IP 220)	- 0:0
Four Ball Weld Load (IP 239) kgs	- 315
Timken OK load (IP 326) lbs	- 50
Operating temperature range	- -30°C to +110°C

**Health & Safety Please refer to the relevant health & safety data sheet, a copy of which is freely available to all of our customers**



# LMP OILS, BATTERIES & FILTERS

## TECHNICAL DATA SHEET



**Tecnol**

**Technical Data Sheet**

### **SYNTHETIC LOW SAPS EURO 4 10W/40**

#### **Product Description:**

Synthetic Low Saps Euro 4 10W/40 is formulated from fully synthetic base stock technology and approved performance additives which offer excellent thermal stability, low volatility, consistently efficient long life performance, complete shear stability and fuel efficient capabilities.

Synthetic Low Saps Euro 4 10W/40 has been developed to enable outstanding performance to be provided along with effective emission control and full compatibility with emission control after treatment systems.

New additive technology ensures optimum performance of emission control equipment including particulate filters at the same time providing long term emission system protection, ensuring a high level of continuous pollution control thereby minimizing environmental damage.

#### **Applications:**

Synthetic Low Saps Euro 4 10W/40 is a super extra high performance diesel engine oil designed specifically to meet the challenge of the most severe lubrication requirements of the latest European heavy duty diesel engines, particularly the low emission Euro 4 engines running under the extreme demands of significantly extended oil change periods together with the clean performance requirements of the Euro 4 norm.

Synthetic Low Saps Euro 4 10W/40 will provide the highest level of performance and protection in all HGV diesel engines where performance demands are severe and service periods are extended.

### **TECHNICAL DATA SHEET**

#### **Benefits:**

- Exceptional long drain capabilities
- Low volatility providing reduced oil consumption and emissions
- Outstanding thermal stability offering consistent long term performance
- Effective environmental protection and fuel efficiency
- Excellent high and low temperature performance and very high levels of engine cleanliness
- Outstanding anti-wear and anti-corrosion properties
- Excellent dispersant and acid neutralization characteristics
- Complete shear stability affording consistent lubrication performance

#### **Product Specification:**

ACEA	E6-04, E4-99 (Issue 3)
MB	228.5 and 228.51
MAN	3277 and 3477
RVI	RXD
MTU	Type 3

#### **Typical Test Data:**

SG @ 15.6°C	0.868
KV @ 100°C (cSt)	14.2
KV @ 40°C (cSt)	96.0
Viscosity index	148
Flash Point COC (°C)	230
Pour Point (°C)	-36
TBN (mg KOH / g)	10.0

## LMP OILS, BATTERIES & FILTERS

### TECHNICAL DATA SHEET



## VACUUM PUMP OIL 100

Highly Paraffinic premium quality lubricating oil for industrial vacuum pumps.

### **Benefits:**

- Excellent filterability

### **Typical Test Data:**

Kinematic Visc @ 40°C	-	100.0
Kinematic Visc @ 100°C	-	11.2
Viscosity Index(VI)	-	95
Pour Point °C	-	-15
Flash Point C.O.C °C	-	>240
Specific Gravity	-	0.86

- Thermally stable
- Good oxidation resistance
- Wide temperature range usage
- Low carbon residue
- Low ash
- Excellent demulsibility

### **Applications:**

For the lubrication of reciprocating, rotary compressors and vacuum pumps according to the equipment manufacturer's requirements and specifications.