

Lubrication solutions for industrial applications



TotalEnergies



TotalEnergies, a broad energy company

TotalEnergies, a broad energy company

Energy is reinventing itself, Total is becoming TotalEnergies. TotalEnergies is a broad energy company that produces and markets energies on a global scale: oil and biofuels, natural gas and green gases, renewables and electricity. Nearly 100,000 of our employees are committed to energy that is more affordable, clean, reliable, and accessible to as many people as possible.

Active in more than 130 countries, TotalEnergies puts sustainable development in all its dimensions at the heart of its projects and operations to contribute to the well-being of people.

A leading global energy company

TotalEnergies' Marketing & Services business segment offers its professional and private customers a wide range of broad energy products and services - petroleum products, biofuels, charging and related services for electric vehicles, gas for road and maritime transportation - to support them in their mobility and help them reduce their carbon footprint.

Every day, over 8 million customers visit our 14,600 service-stations all over the world. As the world's number four in lubricants, we design and sell high performance products for the automotive, industrial and maritime sectors. And to provide the best response to the needs of our B2B customers, we deploy our sales forces, our international logistics network and our diverse offering. We operate in 107 countries, where our 31,000 employees stand close to all of our customers.

Cutting edge R&D in lubrication innovation, responding to dynamic and diverse industrial segments

Each industrial sector has a specific operating environment. Our knowledge and experience of industrial applications means that our products are suited perfectly to customer requirements. TotalEnergies Industrial lubricants offer a wide and comprehensive range of oils, greases, specialty products and dedicated services for 14 key industrial segments: iron and steel, aluminum, metallurgy, car manufacturing, metalworking, cement, agri-food industry, paper, chemicals, energy, mining, textile, glass and wood, that requires specific solutions depending on application.



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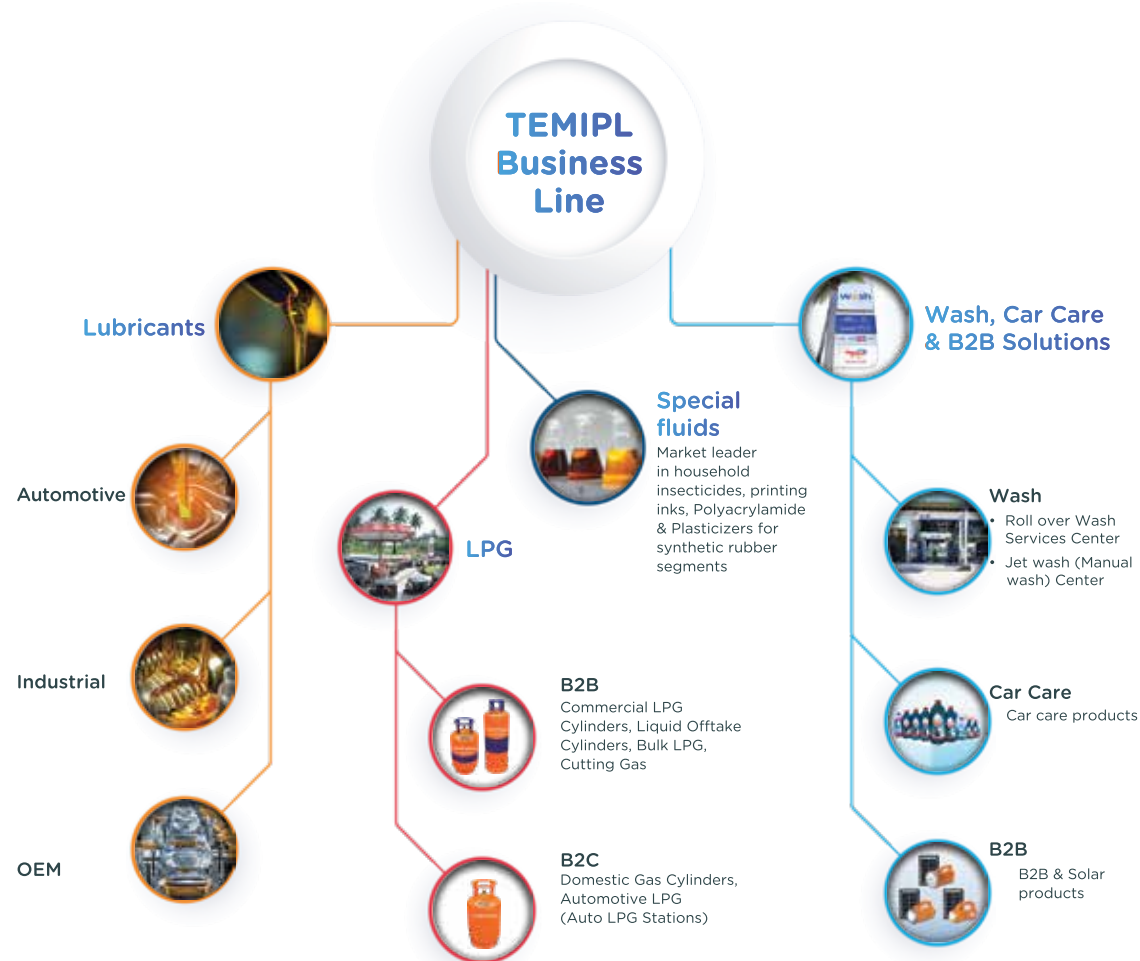
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TotalEnergies Marketing India Private Limited

TotalEnergies Marketing India Private Limited (TEMIPL) is a wholly owned subsidiary of TotalEnergies SE and started its marketing operations in 1993.

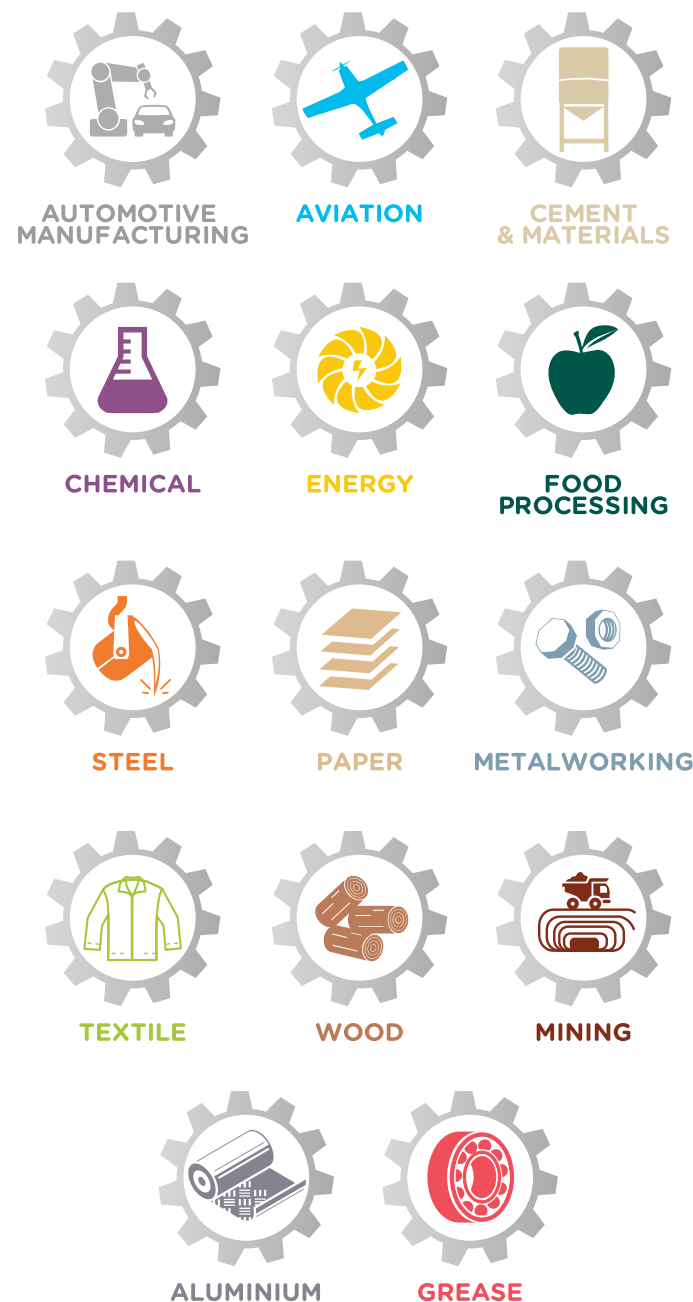
In India, the company has a growing presence in businesses, namely- lubricants for automotive and industrial applications, LPG for domestic and commercial applications, special fluids & car care products and services managed by a team of over 580+ employees.



Central Warehouse in Bhiwandi
16 depots across India
(excluding central warehouse)

Blending plant
in Mahape

Industrial Lubricants





GEAR OIL



GENERAL LUBRICATION

Product Name	Characteristics		
	Viscosity Grades	Technology	Specification & Approvals
CARTER WT	320	Synthetic - PAO	- Fully Synthetic (PAO) Gear Oil for Wind Turbine Gear Box - DIN 51517 Part 3 - CLP - ISO 12925-1 Category CKD, CKSMP - AGMA 9005-F16 AS, IEC 61400-4 - BONFIGLIOLI, EICKHOFF, MOVENTAS, NORDEX, SENVION - SIEMENS WIND, ZF WIND
CARTER ALS	220, 460	Non Staining Base Oils and Specific Non Staining Additives	- Gear Oil Designed for Aluminum Rolling Industry - ACHENBACH, NOVELIS, DANIELI FROHLING
CARTER SH	150, 220, 320, 460, 680, 1000	Synthetic - PAO	- PAO (Polyalphaolefin) Based Gear Oil for Enclosed Gear Drives - Up to 4-6 Times Life Compared to Mineral Oils - DIN 51517 Part 3 - CLP - ISO 12925-1 Category CKD/ CKSMP - AGMA 9005-F16 AS, SEB 181226, JIS K 2219 : 2006 (Class 2) - Chinese GB 5903 L-CKD, GB/ T 33540.3, US STEEL 224 - FLENDER, CMD GEARS, SEW, ZF, ELECON, BONFIGLIOLI, NORD GETRIEBE, BREVINI
CARTER SG	150, 220, 320, 460, 680, 1000	Synthetic - PAG	- Water Soluble Polyglycol (PAG), Non Miscible with Mineral Oil - DIN 51517 Part 3 - CLP PG, ISO 12925-1 Category CKE
CARTER EP	68, 100, 150, 220, 320, 460, 680	Mineral	- Anit Micro-pitting Gear Oil for Enclosed Gear Box - DIN 51517 Part 3 - CLP - ISO 12925-1 Category CKD/ CKSMP - AGMA 9005-F16 AS ,SEB 181226, JIS K 2219 : 2006 (Class 2) - Chinese GB 5903 L-CKD, GB/ T 33540.3, US STEEL 224 - FZG Fail; Load > 14, FVA 54 : 10 High - FLENDER, CMD GEARS, SEW, ZF, ELECON, - BONFIGLIOLI, NORD GETRIEBE
CARTER	100, 150, 220, 320, 680	Mineral	- Mineral Gear Oil for Enclosed Gear Box - DIN 51517 Part 3 - CLP - ISO 12925-1 Category CKC, AGMA 9005-F16, GB 5903-L-CKD

* Refer Product Data Sheet for specific OEM Approvals



HYDRAULIC OIL



GENERAL LUBRICATION

Product Name	Characteristics		
	Viscosity Grades	Technology	Specification & Approvals
EQUIVIS AF	46, 68	Mineral, Zinc Free, High Viscosity Index (>150)	• DIN 51524-3 HLVP • ISO 6743-4 HV • ISO 11158 HV • MITSUBISHI MHI, NEGRI BOSSI
EQUIVIS ZS	32, 46, 68, 100	Mineral, High Viscosity Index (> 150)	• DIN 51524-3 HLVP • ISO 6743-4 HV • ISO 11158 HVLP • Komatsu, SANY, FIVE FCB
AZOLLA AL	22, 46	Aluminum Non Staining	• NSF H1 • ACHENBACH
AZOLLA AF	46, 68	Mineral, Zinc Free	• DIN 51524-2 HLP • ISO 6743-4 HM, ISO 11158 HM • Bosch Rexroth RE 90 245 • AIST 127, SAE MS 1004, GM LS-2 • EATON E-FDGN-TB002-E • Parker Denison HFO, HF1, HF2. • TOST LIFE: 6000 + Hours
AZOLLA ZS Super Clean (NAS 6)	32, 46, 68	Premium Mineral	• DIN 51524 P2 HLP • ISO 6743/ 4 HM, ISO 11158 HM • Bosch Rexroth RE 90 245 • DENISON HFO, HF1, HF2 (T6H20C) • EATON EFDGN-TB002-E • Haitian, Shaibura, FCS, S&T, BOY Sumitomo, ENGEL, YIZUMI, NEGRIBOSI • TOST LIFE: > 5000Hrs
ACANTIS HM	46, 68, 100, 150, 220	Mineral	• DIN 51524 P2 HLP, • ISO 6743/ 4 HM, • VICKERS Z-104C, DENISON HFO, IS 10522-1998 • Haitian, FCS, S&T, E+L • TOST LIFE: 2400Hrs
ACANTIS ECO	68	Mineral	• DIN 51524 P2 HLP • ISO 11158 HM, ASTM D 6158HM



FIRE RESISTANCE HYDRAULIC FLUID



GENERAL LUBRICATION

Product Name	Characteristics		
	Viscosity Grades	Technology	Specification & Approvals
HYDRANSafe HFDU 46	46	Synthetic Ester	• ISO 6743/ 4 HFDU • ISO 12922, FM Approval Standard 6930 • DANIELI, SMS, HILLEADER, RAZEL-BEC, ROBBINS
HYDRANSafe FR EHC 46	46	Phosphate Ester	• ISO 12922-HFDR • ASTM 4293-HFDR • ALSTOM HTGD 690 149P • GE-GEK 120329, 46357 • SIEMENS KWU-TLV 9012 02

* Refer Product Data Sheet for specific OEM Approvals



COMPRESSOR OIL



GENERAL LUBRICATION

Product Name	Characteristics			
	Viscosity Grades	Technology	Specification & Approvals	Application Note
DACNIS LD	46, 68	Hydrocracked Mineral	- DIN 51506 VD-L - ISO 6743-3 DAJ - ISO 6521-2 - Meets or Exceeds the Requirement of OEM Mineral Oils : ELGI, ATLAS CAPCO, Garden Denver, Comp Air	- Air Compressor Oil for Rotary Screw Compressor - Drain Interval up to 4000 Hour (Discharge Temperature up to 100°C) - Suitable for the Lubrication of Vacuum Pumps in case of Primary Vacuum - Better Oil-air and Oil-condensates Separation to Prevent Formation of Emulsion and Protect the Air-oil Separating Filter
DACNIS SH	46, 68	Synthetic - PAO	- ISO 6743-3 DAJ, DGC - DIN 51506 VDL - Meets or Exceeds the Requirement of OEM Synthetic Oil ELGI, ATLAS CAPCO, Garden Denver, Comp Air, BAUER, IR	- Air Compressor Oil for Rotary Screw Compressor - Longer Drain Interval up to 8000 Hour (Discharge Temperature up to 100°C) - Extended Life for Separator Element - Outstanding Resistance to the Formation of Sludge and Carbon Deposits - Suitable for the Lubrication of Vacuum Pumps in case of Primary Vacuum - Lubrication of Natural Gas Compressors in case of Low Gas Dilution
PLANETELF ACD 150 FY	150	Synthetic Polyolester	- ISO 6743-3 DRD • ISO 6521-3 - AERZEN, BOCK FRASCOLD, GRAM, GRASSO, HOWDEN, MCQUAY, SABROE, SULZER, YORK	- Compatible with all kinds of HFC Refrigerants: R134A, R404A, R407C, R410A, R507, R23 - Low Dilution of Refrigerant in Oil
PLANETELF ACD 68	68			
CORTIS MS	100, 150, 220, 320, 460	Ash Less Premium Mineral Oil		Suitable for Reciprocating Air and Gas Compressor (Natural Gas, Nitrogen and Propene), Ash Less Additive with High Hydrolytic Stability

* Refer Product Data Sheet for specific OEM Approvals



CIRCULATING OIL



GENERAL LUBRICATION

Product Name	Characteristics		
	Technology	Specification & Approvals	Application Note
CORTIS MS Viscosity Grades : 100, 150, 220, 320, 460	Ash Less Premium Mineral Oil	- DANIELI® BGV and ESS Bearings - MORGOIL® Standard Lubricant - SN 180 Part 3 - MORGOIL® Advanced Lubricant - SN 180 Part	- Approved for Hydrodynamic MORGOIL and DANIELI Bearings used in Rolling Mills - Very Good Demulsibility at High and Low Temperature - Ash Less Additive with High Hydrolytic Stability



HEAT TRANSFER OIL



GENERAL LUBRICATION

Product Name	Characteristics		
	Technology	Specification & Approvals	Application Note
SERIOLA AB	Synthetic-Alkyl Benzene	- ISO 6743-12 L-QC-300 - DIN 51522 - Class Q - Thermal Stability Tests (720h, 300°C) - GB/ T 23800-2009/ DIN 51528/ ASTM D6743 - Thermal Tech Wittmann	- Viscosity @ 40°C : 20 Cst - Operating Temperature -10°C to 305°C - Bulk Temperature : 320°C, Film Temperature : 360°C - Auto Ignition Temperature 380°C, Low Pour Point <-36°C - Miscible & Compatible with Mineral HTF
SERIOLA 32	Premium Mineral	- ISO 6724-12 Class L-QC - DIN 51502 Class L	- Viscosity @ 40°C : 32 Cst - Operating Temperature 0 to 290°C - Bulk Temperature : 290°C, Film Temperature : 310°C - Good Resistance to Thermal Cracking and Oxidation
SERIOLA CLEANER	Mineral		- Circuit Cleaning Fluid, Add 5% in Oil Circuit, 48 Hours Before Oil Change - High Detergency and Dispersancy Ensure Effective Cleaning

* Refer Product Data Sheet for specific OEM Approvals



CHAIN OIL



GENERAL LUBRICATION

Product Name	Characteristics		
	Technology	Specification & Approvals	Application Note
Estar SHT 200	Synthetic Ester Oil	- Viscosity @ 40°C : 200 Cst & @ 100°C : 19.5 Cst - Lubrication of Roller Chains, Conveyor Rollers, and Cams Operating in Furnaces and Ovens up to 240°C - Lower Oil Consumption - No Formation of Hard, Tough Deposits, Gum, or Varnish at High Temperature	



PNEUMATIC OIL



GENERAL LUBRICATION

Product Name	Characteristics		
	Technology	Specification & Approvals	Application Note
PNEUMA 100 Viscosity Grade 100	Mineral	ISO 6743/ 11 Class ISO-L-PAB	Mineral Oil for Pneumatic Equipment, Percussion, or Rotary, such as Rock Drills and Jack Hammers. It is adapted to Underground and Surface Mining Operation



TURBINE OIL



GENERAL LUBRICATION

Product Name	Characteristics		
	Technology	Specification & Approvals	Application Note
PRESLIA Viscosity Grades : 32, 46, 68	Premium Mineral Oil	- ISO 6743-5 THA/ THE/ TSA/ TSE/ TGA/ TGB/ TGE/ TGSE - ISO 8068 (ISO VG 32 & 46) - DIN 51515 Parts I & II - JIS K2213 Type 2 w/ add - ASTM D 4304 - Type I & II - China National Standard GB 11120-2011 LT	- Preslia Oils are Specially Designed for the Lubrication of Hydraulic, Steam or Gas Turbines. They can also be used in Centrifugal Compressors or Turbochargers - Suitable for both Geared and Non Geared turbines

* Refer Product Data Sheet for specific OEM Approvals



GAS ENGINE OIL



GENERAL LUBRICATION

Product Name	Characteristics			
	Viscosity Grades	Technology	Specification & Approvals	Application Note
NATERIA MX 40	SAE 40	Semi Synthetic	- Low Ash (0.51) Natural Gas Engine Oil - High TBN 7.2, Viscosity @ 100°C 13.9 Cst	- Engineered to meet Latest Generation Steel Piston Engines Operating with Higher Temperatures - Extended Drain Intervals against Premium GR-II Based Gas Engine Oils - Enhance Detergency at High Temperatures - Reduced Specific Lub Oil Consumption
NATERIA MWX 40	SAE 40	Premium Hydrocracked Mineral	- Low Ash (0.54) Natural Gas Engine Oil - High TBN 7.3, Viscosity @ 100°C 13.5 Cst	- Optimized for the Latest Steel Piston Engines - Exceptional Performance under High Temperatures - Up to 50% Longer Oil Drain Intervals - Exceptional Thermal Stability without the Formation of Deposits or Varnish - Reduced Specific Lub Oil Consumption
NATERIA MP 40	SAE 40	Hydrocracked Mineral	- High TBN: 4.6 - Low Ash content: < 0.5% - Viscosity @ 100°C 13.8 Cst	- High Performance under Severe Conditions - Compatible with Exhaust System
NATERIA MJ 40	SAE 40	Hydrocracked Mineral	- Medium Ash (0.8 %), - High TBN: 8.8, Viscosity @ 100°C, 15.1 Cst	- Suitable for Land Fill, Bio Gas and Duel Fuel Engines - Strengthened Detergency

* Refer Product Data Sheet for specific OEM Approvals

Nateria is Approved by All Major Global OEM's



SPECIAL PRODUCTS



GENERAL LUBRICATION

Product Classification	Product Name	Characteristics	
		Technology	Characteristics/ Specification
Petroleum Jellies	EMETAN M	White Mineral Oil and Micro-crystalline Wax	EMETAN M meets the Purity Requirements of the following Pharmacopeia : Germany DAB, French CODEX, Britain BP and USP (Latest Editions)
Air Purification Oil for Aluminum Rolling	LUBRILAM CLEANER	Highly Refined Mineral Oil	• Viscosity @ 40°C : 30.6 Cst • Air Purification Oil Designed for the Aluminum Rolling Industry • High Solvent Recovery Properties • Permits to Recycle a Large Amount of Rolling Fluids
White Paraffin Mineral Oil	FINAVESTAN A 80 B	• European Pharmacopoeia • US Pharmacopoeia • US FDA, 21 CFR 178.3620(a) and 178.3570 • European Regulation 2011/ 10/ CE • Registered FINAVESTAN White Oils are NSF 3H and H1 • CAS Number : 8042-47-5 • INCI Number (EU) : Paraffinum Liquidum	• Viscosity @ 40°C : 15Cst • Flash Point : 180°C
	FINAVESTAN A 100 B		• Viscosity @ 40°C : 23 Cst • Flash Point : 195°C
	FINAVESTAN A 360 B		• Viscosity @ 40°C : 68 Cst • Flash Point : 240°C
	FINAVESTAN A 520 B		• Viscosity @ 40°C : 100 Cst • Flash Point : 250°C

* Refer Product Data Sheet for specific OEM Approvals



FOOD GRADE LUBRICANTS



Product Category	Product Name	Characteristics			
		Viscosity Grades	Technology	Specification and Application	
Hydraulic Oil	NEVASTANE AW 68	VG 68	White Mineral Oil	• ISO 21469 • ISO 6743-4 HM	• High-pressure Hydraulic System and/ or Air-line Lubricators • Miscible with Mineral Fluids
Gear and Bearing Oil	NEVASTANE EP 220	VG 220	White Mineral Oil	• ISO 12925-1 CKD • DIN 51517-3 CLP	• FZG (A/ 8, 3/ 90°C) - Fail Stage > 12 • Lubrication of Gear Reducers, Plain and Roller Bearings, Chains and Conveyor Belts in the Food Processing Industries • Miscible with Mineral Fluids
	NEVASTANE EP 320	VG 320			
Compressors, Pneumatic and Hydraulic Oils	NEVASTANE SH 32	VG 32	Synthetic - PAO	• DIN 51554-2 • DIN 51506 VD-L • ISO 6743-3 DAJ	Lubrication of Gear Reducers, Air Compressors, Vacuum Pumps and Hydraulic Systems especially Operating at High and Low Temperatures
	NEVASTANE SH 46	VG 46			
	NEVASTANE SH 100	VG 100			
Gear Oil	NEVASTANE SY 220	VG 220	Synthetic - PAG	DIN 51517-3 CLP PG	• FZG (A/ 8, 3/ 90°C) - Fail Stage > 12 • FZG Micropitting - Fail Stage 10 • Lubrication of Worm Gears and Reducers, High Temperature Oven Chains and Bottling Equipment
	NEVASTANE SY 320	VG 320			
	NEVASTANE SY 460	VG 460			
Chain Oil	NEVASTANE CHAIN OIL XT	VG 220	Synthetic Ester	Temperature up to 260°C	Lubrication of any Control, Drive, and Transport Chains Subject to High Temperatures and Loads
Gear Oil	NEVASTANE XSH 150	VG 150	Synthetic - PAO	• ISO 21469 • ISO 12925-1 CKD • DIN 51517-3 CLP • DIN 51354-2	• FZG (A/ 8, 3/ 90°C) - Fail stage > 12 • Lubrication of Gear Reducers, Plains, and Roller Bearings • Superior Protection and Longer Service Life
	NEVASTANE XSH 220	VG 220			
	NEVASTANE XSH 320	VG 320			
	NEVASTANE XSH 460	VG 460			
Food Grade Greases	NEVASTANE XMF 1	BOV@40°C 120 mm2/s	Aluminum Complex + White Mineral Oil		• From -20°C to +150°C • XMF 1 : NLGI 1 and XMF 2 : NLGI 2
	NEVASTANE XMF 2				
	NEVASTANE XS 80	BOV@40°C 80 mm2/s	Calcium Sulfonate Complex + Synthetic Oil		• Wide Temperature Range, High Load Conditions • Wide Applications e.g. Pelleting Presses used in Feed Industry (Pet Food, Sugar Beet) : KAHL, PROMILL, CPM, UMT, VAN AARSEN
	NEVASTANE XS 320	BOV@40°C 320 mm2/s			

* Refer Product Data Sheet for specific OEM Approvals



TEXTILE LUBRICANTS



Product Category	Product Name	Characteristics		
		Viscosity Grades (@40°C)	Specification & Approvals	Benefits
Knitting Oil	TIXO STAINLESS	VG 22 & VG32	- ECO PASSPORT by OEKO-TEX® - Terrot • Mayer & CIE - Unitex • Pailung - FUKUHARA • Oerlikon - Barmag • JINGMEI (SANTONI)	- Washing Temperature up to 60°C - DIN 62136 Standard Approved in terms of Friction Coefficient, Wear and Maximum Load Extending Stitch Forming Parts Shelf Life - High Level Corrosion Protection on Machinery, According to DIN 51360 Standard
	TIXO STAINLESS CO	VG 22 & VG32		- Washing Temperature up to 70°C and Above - High Performance Washable Needle Oil for Lubricating all Types of Knitting Machines - Medium & High Temperature Washing
	TIXO STAINLESS CO +	VG 22 & VG32		
	TIXO CLEAN	2		Low Viscosity, Mineral Based Cleaning Oil for Circular Knitting Machine. Helps to Clean the Internal Parts of Knitting Machine
Coning Oil	Lissolfix APZ 2090 Lissolfix APZ 2080	12.5		Coning Oil Applied During Texturizing Process of Synthetic Yarns to Reduce Friction and Static Charge. Anti-splashing Technology Helps to Achieve High Operational Speed Without any Splashing of the Oil
High-end Coning Oil / Warping Oil	Paratex APZX 1351 Lissolfix APZX 1351	16	- ECO PASSPORT by OEKO-TEX® - GRS Compliant	Mineral Based Lubricant for all kind of Synthetic Textured/ Flat Yarns, used in High Speed Beaming/ Warping Operations. It gives Outstanding Filament and Yarn Protection to Most Fragile Yarns

* Refer Product Data Sheet for specific OEM Approvals



MACHINE TOOL



METAL WORKING

Product Category	Product Name	Characteristics		
		Viscosity Grades	Technology	Specification & Approvals
Slide Way Lubricant	DROSER MS	68, 220	Mineral	- ISO 6743/ 2 : FD2, FD5, FD 10, FD22, FD32 - ISO 6743/ 13 : GA68, GA220 • DIN 51502: CGLP68, CGLP220 - DIN 51517 Part 3, CLP 68, CLP 220 - CINCINNATI MACHINE: P65-P62-P47-P50-P53-P45
Spindle Oil	AZOLLA SPIN EE 10	10	Mineral	High Speed Spindle Oil
EDM OIL	DIEL 7500	Viscosity @ 40°C, 2 Cst	Refined Hydrocarbon	Flashpoint : 110 C • Aromatic by Weight : 0.1%



RUST PREVENTIVE OILS



METAL WORKING

Product Name	Film Thickness (Microns)	Flash Point °C	Characteristics								
			Operating conditions								Key Performance Rating
			Saline Environment	Acidic Environment	Outdoor Covered Storage	Indoor Storage	Large Dipping Tank	Spray	Brush	Drip	
OSYRIS 2609	5-6	40									• De-watering: *** • Indoor Protection: 12 Months • Outdoor Protection: 4 Months
OSYRIS 2626 TP	4-5	40									• De-watering: *** • Indoor Protection: 9 Months • Outdoor Protection: 2 Months
OSYRIS HF 5000	1	80									• De-watering: **** • Indoor Protection: 4 Months • Outdoor Protection: 1 Month
OSYRIS 2611 WD	2-5	40									• De-watering: **** • Indoor Protection: 3 Months • Outdoor Protection: 1 Month

Suitable

Likely Suitable

Not Suitable

* Refer Product Data Sheet for specific OEM Approvals



WATER SOLUBLE CUTTING FLUID



METAL WORKING

Product Name	Technology	Characteristics			
		Machining Operations			Key Features
		Material	Grinding	Machining	
VULSOL MSF 7200	Synthetic Cutting Fluid for Machining and Grinding Wide Range of Metals	Cast Iron Mild Steel Stainless Steels Nonferrous Metals Plastic/ Optical Lens			- Refractometer Factor : 1.0 - Machining and Grinding Steel and its Alloys as well as Nonferrous Metal Machining Plastic Materials as well as for Machining and Polishing Special Optical Lenses - Reduced Cutting Efforts, Extended Tool Lifetime, Very Good Surface Finish to Parts
SPIRIT 5000	Semi-synthetic Micro-emulsion for Machining and Grinding	Cast Iron Mild Steel Stainless Steels Aluminum Alloys			- Refractometer Factor : 1.4 - Suitable with Soft (90 ppm) to Hard (350 ppm) Water for First Fill - Better Tool Life, High Service Life, Excellent Detergency, Optimum Lubricity, Low Foaming, Excellent Contamination Resistance
SPIRIT 3000	Semi-synthetic Micro-emulsion for Machining and Grinding for Ferrous Metal	Cast Iron Mild Steel Stainless Steels Aluminum Alloys			- Refractometer Factor : 2.0 - Suitable with Soft (90 ppm) to Hard (350 ppm) Water for First Fill - Low Oil Content > Reduced Consumption, Better Tool Life, High Service Life, Excellent Detergency, Low Foaming
LACTUCA 5000	Mineral Macro-emulsion for General Machining	Cast Iron Mild Steel & Galvanized Steel Stainless Steels Aluminum alloys Copper Alloys			- Refractometer Factor : 1.0 - Emulsion Stability Even at 800 ppm Hardness, Water Extendable Fluids for Wide Range of Water Hardness - High Alkalinity Reserve, Improved Tool Life and Surface Finish, Excellent Tramp-oil Rejection
LACTUCA 3000	Mineral Macro-emulsion for General Machining	Cast Iron Mild Steel & Galvanized Steel Stainless Steels Aluminum Alloys Copper Alloys			- Refractometer Factor : 1.0 - Recommended for Both Ferrous and Non Ferrous Machining - Exhibits Satisfactory Results in Carbon Steel - Chlorine Free, Operator and Environmental Friendly

* Refer Product Data Sheet for specific OEM Approvals



NEAT CUTTING OIL



METAL WORKING

Product Name	Technology	Characteristics				
		Viscosity @40°C	Flash Point °C	Machining Operations		Key Performance Rating
VALONA 2724 IN	Light Mineral Oil	5 Cst	120	Grinding	Lapping	- Hone Life: *** - Sump Life: *** - Filter-ability: *** - Anti Fuming/ Misting: **
				Honing	Tapping	
VALONA GR 5005 HC	Hydrocracked Mineral	5 Cst	145	Grinding	Lapping	- Hone Life: **** - Sump Life: **** - Filter-ability: **** - Anti Fuming/ Misting: ****
				Honing	Tapping	
VALONA 7009 IN	Light Mineral Oil	10 Cst	165	Deep Hole Drilling	Turning	- Tool Life: *** - Fuming/ Misting: *** - Load Bearing: ***
				Gun Drilling	Threading	
				Broaching	Tapping	
VALONA MS 5020 HC	Hydrocracked Mineral	22 Cst	210	Milling	Drilling	- Tool Life: **** - Anti Fuming/ Misting: **** - Load Bearing: ****
				Turning	Sawing	
				Reaming	Tapping	
VALONA 7035 IN	Mineral Oil	35 Cst	230	Hobbing	Threading	- Tool Life: *** - Anti Fuming/ Misting: ** - Load Bearing: ****
				Shaping	Tapping	
				Gear Cutting		
VALONA BR 9015 HC	Hydrocracked Mineral	15 Cst	195	Broaching	Gear cutting	- Tool Life: *** - Broach Life: **** - Anti Fuming/ Misting: **** - Load Bearing: ****
				Deep Hole Drilling	Grinding	
VALONA GR 7012 HC	Hydrocracked Mineral	12 Cst	>190	Grinding	Machining	- Grinding Wheel Life: **** - Sump Life: **** - Filter-ability: **** - Anti Fuming/ Misting: ****
				Honing		
VALONA MS 7023 HC	Hydrocracked Mineral	23 Cst	>200	Turning	Reaming	- Tool Life: **** - Anti Fuming/ Misting: **** - Load Bearing: ****
				Drilling	Tapping	
				Boring	Hobbing	

Most Suitable

Suitable

Likely Suitable

* Refer Product Data Sheet for specific OEM Approvals



ROLLING FLUID



METAL WORKING

Product Name	Specification	Operating Conditions		Key Features
		Sheet Cold Rolling	ERW Tube Rolling	
LACTUCA 2614 CR	Water Soluble Milky Emulsion	Mild Steel Copper	Stainless Steel Brass	Mild Steel
LUBRILAM S31L	Viscosity @ 40°C: 1.9Cst Flash Point: 93°C	Aluminum		- Hydrocarbon Fluid, Highly Hydrotreated - Very Low Aromatic and Sulfur Content - Certified for Incidental Food Contact
Rolkleen SD Series	Viscosity @ 40°C: 40~60Cst Flash Point: 260°C	Steel		*Cold Rolling Oil for Steel Cold Rolling Mill *Optimum Lubricity *Good Antiwear Property
Rollub Series	Viscosity @ 40°C: 40~65Cst Flash Point: 250°C	Stainless Steel, Mild Steel, Copper, Brass		*Cold Rolling of Stainless & Non Ferrous Metals *Optimum Lubricity & Surface Compatibility *Excellent Antiwear Property
Rolkleen EP Series	Viscosity @ 40°C: 40~60Cst Flash Point: 250°C	Steel		*Cold Rolling Oil for 4-Hi, Narrow & Slow Speed Rolling Mill *Optimum Lubricity *Excellent Antiwear Property
Rolshield HM Series	Viscosity @ 40°C: 160Cst Flash Point: 250°C	Steel		*Hot Rolling Oil for all kinds of Hot Rolling Mills *Optimum Lubricity *Excellent Antiwear Property
Tempershield Series	Viscosity @ 40°C: 4~12.2Cst High Extension Temper Rolling	Coated & Uncoated Steel		*Nitrite Free, Boron Free Aqueous Wet Temper Fluid used in all types of Skin-pass Rolling Mills *Excellent Antiwear Property *Compatible for Steel & Zn & Zn + Al Coated Products

Most Suitable

Suitable

Likely Suitable

Not Suitable

* Refer Product Data Sheet for specific OEM Approvals



FORMING FLUID



METAL WORKING

Product Name	Specification	Characteristics				
		Operation				Key Features
Aluminum Forming		Radiator Fin Stamping	HVAC Fin Stamping	Bending	Contouring	
MARTOL LVG 13 CF	Viscosity @ 40°C: 1.3 Cst Flash Point: 68 °C					• Vanishing Fluid • Can be used for Copper Tube Bending • Fast Evaporation with No Residue • Excellent Surface Wetting
MARTOL LVG 25 AQ	Viscosity @ 40°C: 2.8 Cst Flash Point: 110°C					• Vanishing Fluid • Compatible with Brazing • Fast Evaporation • Excellent Surface Wetting
Steel Forming		Nut & Bolt Cold Forging	Progressive Punching	Heavy Duty Stamping	Heavy Duty Forming	
MARTOL SB 68	Viscosity @ 40°C: 68 Cst Flash Point: 240°C					• Forming Fluid for Cold Heading Operations • Manufacture of Screws and Bolts of all Types • It can be also Used for Other Forming Operations also
MARTOL 104	Viscosity @ 40°C: 150 Cst Flash Point: 243°C					• Specifically Adapted for Heavy Duty Progressive Punching of Mild Steel • Fortified with Special Anti-weld Additives that Ensure High Punch Life and Scar Free Surface

Most Suitable	Suitable	Likely Suitable	Not Suitable
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Steel Wire Drawing

MARTOL 708	Viscosity @ 40°C: 27 Cst Flash Point: 156°C	For Multi-pass Stainless Steel Wire Drawing, Fortified with Friction Modifier to Maximize Die Life, Special Anti-weld Additives Improve Surface Finish
MARTOL 9107	Viscosity @ 40°C: 220 Cst Flash Point: 260°C	For Single Pass Stainless Steel Wire Drawing, Fortified with Friction Modifiers and EP Additives to Sustain Most Severe Drawing Operations, Heavy Duty Anti-weld Additives that Protect Wire Surface from Scoring
VALONA MS 5020 HC	Viscosity @ 40°C: 22 Cst Flash Point: 210°C	For Stainless Steel Fine Wire Drawing, Specialized Base Oil, that Leave No Residue, Fortified with In-active Sulphur that Ensure High Die Life and Scratch Free Surface

* Refer Product Data Sheet for specific OEM Approvals



ENGINE OIL



OFF HIGHWAY VEHICLES & EQUIPMENT

Product Name	Characteristics				
	Technology	SAE Grade	BN (mg KOH/ g)	Viscosity @ 100°C	Industry Specification (API/ ACEA/ JASO) OEM Recommendations/ Meets Requirement
SUPER HDB ULTRA 20W-40	Mineral	20W-40	8.52	14.71	• API CF4/ SG • MACJ T8A • IS13656 : 1993 EDL 3
RUBIA FLEET HD 300 15W-40	Mineral	15W-40	9	18.8	• API CF-4/ SG • MAN 271 • MB-Approval 228.1 • Volvo VDS • DEUTZ DQC I-02
RUBIA FLEET HD 500 15W-40	Mineral	15W-40	9	14	• API CH-4/ SJ • Mack EOM • MAN M 3275 • MB-Approval 228.1 • CAT ECF-1 • Renault Trucks RD/ RD-2 • Volvo VDS-2 • ZF TE-ML 07D
RUBIA FLEET HD 700 15W-40	Mineral	15W-40	9	14.2	• API CI-4
RUBIA FLEET HD 800 15W-40	Mineral	15W-40	11	13.8	• API CI-4 Plus
RUBIA TIR 7400 15W-40	Mineral	15W-40	11	13.8	• ACEA E7 • API CI-4
RUBIA WORKS 1000 PLUS 15W-40	High-technology Base Oils	15W-40	11	13.8	• ACEA E7 • API CI-4 Plus/ CI-4/ CH-4/ SL • JASO DH-1 • Global DHD-1 • CUMMINS CES 20078 • DEUTZ DQC III-18 • MTU Category 2 • VOLVO VDS-3 • DETROIT DIESEL DDC 93K214 • MACK EO-N • DTFR 15B110 (228.3) • RENAULT VI RLD-2 • CATERPILLAR ECF-2/ ECF-1-a • MAN M 3275

* Refer Product Data Sheet for specific OEM Approvals



ENGINE OIL



OFF HIGHWAY VEHICLES & EQUIPMENT

Product Name	Characteristics				
	Technology	SAE Grade	BN (mg KOH/ g)	Viscosity @ 100°C	Industry Specification (API/ ACEA/ JASO) OEM Recommendations/ Meets Requirement
RUBIA 7800 TT 15W-40	Mineral	15W-40	11.45	14.63	• API CI-4 Plus/ SL • ACEA E7 -08 Issue 2 (2010) • ACEA A3/ B4-04 (2007) • MB-Approval 228.3 • MAN M 3275 • CUMMINS 20076/ 20077/ 20078 • VOLVO VDS-3 • MTU OIL TYPE 2 • MACK EO-M+ • RENAULT TRUCKS RLD/ RLD-2 • CATERPILLAR ECF 1- a and ECF - 2
RUBIA TIR 8800 10W-40	Synthetic oil	10W-40	14	14.6	• ACEA E4 • API CI-4/ CH-4 • Mack EO-N • MAN M 3277 • DTFR 15B120 • Renault Trucks RLD-2 • Volvo VDS-3 • Cummins CES 20078
RUBIA WORKS 4000 15W-40 (Low SAPS= 1.0)	Mineral	15W-40	10	15.3	• ACEA E7, E9, E11 • API CK-4/ CJ-4/ CI-4 Plus/ CI-4/ CH-4/ SN • JASO DH-2 • DEUTZ DQC III-18 LA • MTU Category 2.1 • DTFR 15C100 (228.31) • VOLVO VDS-4.5 • MACK EO-S 4.5 • RENAULT VI RLD-3 • CUMMINS CES 20086 • DETROIT DIESEL DFS 93K222 • MAN M 3775 • ISUZU Recommended Lubricant (2020) • Allison TES 439
RUBIA Works 5000 10W-40 (Low SAPS <1.0)	High-technology Base Oils	10W-40	10	14.3	• ACEA E6 , E7 , E8 , E9 , E11 • API CK-4/ CJ-4/ CI-4 Plus/ CI-4/ CH-4 • JASO DH-2 • DEUTZ DQC IV-18 LA • RENAULT RLD-3 • MTU Category 3.1 • MAN M 3775 • MACK EOS 4.5 • DTFR 15C120 (228.52), DTFR 15C110 (228.51), DTFR 15C100 (228.31) • VOLVO VDS-4.5 • CUMMINS CES 20086 • LIEBHERR LH-01 ENG LA / LH-01 • CATERPILLAR ECF-3/ ECF-2/ ECF-1a • MAN M 3477/ M 3271-1

* Refer Product Data Sheet for specific OEM Approvals



ENGINE OIL



OFF HIGHWAY VEHICLES & EQUIPMENT

Product Name	Characteristics				
	Technology	SAE Grade	BN (mg KOH/ g)	Viscosity @ 100°C	Industry Specification (API/ ACEA/ JASO) OEM Recommendations/ Meets Requirement
Rubia Optima 1300 15W-40 (Low SAPS=0.99)	Synthetic	15W-40	0.99	15.2	• ACEA E7, E9, E11 • API CK-4/ CJ-4/ CI-4 Plus/ CI-4/ CH-4 • Cummins CES 20086 • DDC DFS 93K222 • Mack EOS-4.5 • DTFR 15C100 • Renault Trucks RLD-3 • Volvo VDS-4.5 • FORD WSS-M2C 171-F1
Rubia Optima 1300 FE 10W-30 (Low SAPS=0.99)	Synthetic	10W-30	0.99	12.19	• ACEA E7, E9, E11 • API CK-4/ CJ-4/ CI-4 Plus/ CI-4/ CH-4 • Cummins CES 20086 • DDC DFS 93K222 • Mack EOS-4.5 • DTFR 15C100 • Renault Trucks RLD-3 • Volvo VDS-4.5 • FORD WSS-M2C 171-F1 • DAF • IVECO



ENGINE OIL



MARINE LUBRICANT

Product Name	Characteristics				
	Technology	SAE Grade	BN (mg KOH/ g)	Viscosity @ 100°C	Industry Specification (API/ ACEA/ JASO) OEM recommendations/ Meets Requirement
Disola M 4015 Trunk Piston Oil for Medium Speed Engines	Mineral	40	14	14.2	• MAN ES (MAN B&W) ✓ Wärtsilä ✓ Hyundai Himsen ✓ Daihatsu ✓ Rolls-Royce ✓ MaK (Caterpillar)
Aurelia TI 4020 Trunk Piston Oil for Medium Speed Engines	Mineral	40	20	14	• MAN ES (MAN B&W) ✓ Wärtsilä ✓ Hyundai Himsen ✓ Daihatsu ✓ Rolls-Royce ✓ MaK (Caterpillar)

* Refer Product Data Sheet for specific OEM Approvals



TRANSMISSION AND AXLE



OFF HIGHWAY VEHICLES & EQUIPMENT

Product Name	Characteristics				
	Technology	SAE Grade	Viscosity @ 100°C	VI	Industry Specification OEM Recommendations/ Meets Requirement
Super HDB 30	Mineral	30	11.2	93	API CFALLISION C4, CAT TO2
TRANSTEC 4 SAE 90	Mineral	90	17.5	96	API GL-4
TRANSTEC 4 SAE 140	Mineral	140	26	93	API GL-4
TRANSTEC 4 80W-90	Mineral	80W-90	14.4	101	API GL-4
TRANSTEC 5 85W-140	Mineral	85W-140	25		API GL-5,MIL-L 2105 D
GEARELF 5 EP 80W-90	Mineral	80W-90	15.89	> 210	API GL-5, MIL-L-2105 D, ZF TE-ML 05A/ 16B/ 17B/ 19B/ 21A (Applicable only to CLAAS AGRISHIFT MT)
TRAXIUM AXLE 7 85W-90 (EP B 85W90)	Mineral	85W-90	17.5	95	• API GL-5 • ZF TE-ML 16C, 17B, 19B, 21A • Mercedes-Benz: MB 235.0, Mercedes-Benz Trucks : DTFR 12B100 (235.0) - Adapted for MAN, MERCEDES and ZF Hypoid Axles • Meets :MAN 342 Type M1

* Refer Product Data Sheet for specific OEM Approvals



TRANSMISSION AND AXLE



OFF HIGHWAY VEHICLES & EQUIPMENT

Product Name	Characteristics				
	Technology	SAE Grade	Viscosity @ 100°C	VI	Industry Specification OEM Recommendations/ Meets Requirement
TRAXIUM GEAR 7 80W-85 (EP 80W 85)	Mineral	80W-85	11.5	96	• API GL4, MIL-L-2105 • Mercedes-Benz : MB235.1, Mercedes-Benz Trucks: DTFR 13B100 (235.1) • ZF TE-ML 17A • Specially Recommended for MERCEDES BENZ and ZF Hypoid Gears, with Standard Drain Interval • Suitable for DAF, IVECO, RENAULT TRUCKS, VOLVO • Meets : MAN 341 Type E1
TRAXIUM DUAL 9 FE 75W-90	Synthetic	75W-90	15	157	• API GL-4, API GL-5, API MT-1, SAE J2360 • ZF TE-ML 02B/ 05A/ 12L/ 12N/ 16F/ 17B/ 19C/ 21A • MAN 341 Type GA-1, TYPE Z-2, MAN 342 TYPE S-1 • SCANIA STO 2:0 A FS, 1:1 G, VOLVO 97312, Meritor O-76N • Mack GO-J Plus, DAF, IVECO RAS1, Mercedes-Benz Trucks: DTFR 12B140 (235.8) • Meets : Scania STO 1:0 • VW G 052 911
TRAXIUM GEAR 9 FE 75W-90	Synthetic	75W-90	14.5	95	• API GL-4 • Mercedes-Benz Trucks: DTFR 13B110 (235.11)
FLUIDMATIC D III MV Automatic Transmission Fluid(ATF)	Mineral		7.296	190	• Suitable for GM Dexron III G/ IIH, Ford Mercon • ZF TE-ML 14A/ Allison C4 (TES-228)

* Refer Product Data Sheet for specific OEM Approvals



TRANSMISSION AND AXLE



OFF HIGHWAY VEHICLES & EQUIPMENT

Product Name	Characteristics				
	Technology	SAE Grade	Viscosity @ 100°C	VI	Industry Specification OEM Recommendations/ Meets Requirement
DYNATRANS MPX (UTTO)	Mineral	10W-30/ 80W	10.4	154	• API GL-4 • VALTRA G2-08, VOLVO 97303 (WB101) • ZF TE-ML 03E/ 05F/ 06D/ 06K/ 06N/ 06R/ 17E/ 21F • DANA-OHTM-UTTO (Approval ID 21K-0007) • Meets : JOHN DEERE JDM J20C, MASSEY FERGUSON CMS M1145/ M1143, FORD FNHA-2-C-201.00/ ESN-M2C134-C/ D
DYNATRANS SF 31 (UTTO)	Mineral	UTTO	10.59	105	• API GL-4 • MIL-L-2105 • Meets : FORD M2C134D, MASSEY FERGUSON M 1143, JOHN DEERE J 20C/ 20D
DYNATRANS ACX 10W (Hydraulic System)	Mineral	10W	6.7	116	• ZF TE-ML 03C • DANA-OHTM-TO10W • ZF TE-ML 03C ZF TE-ML 07F, API GL-4/ CF • CATERPILLAR TO-4 • CATERPILLAR HYDO Advanced 10 • ALLISON C4 (Obsolete) • KOMATSU Micro Clutch Test (JCMAS)
DYNATRANS ACX 30 (Powershift Transmissions)	Mineral	30	11.3	97	
DYNATRANS ACX 50 (Axles & Final Drives)	Mineral	50	18.4	104	• Meets : API GL-4/ CF • CATERPILLAR TO-4 • KOMATSU Micro Clutch Test (JCMAS)

* Refer Product Data Sheet for specific OEM Approvals



COOLANT



OFF HIGHWAY VEHICLES & EQUIPMENT

TYPE	Product Name	Characteristics		
		Type	Color	Application Note
Coolant	COOLELF AUTO SUPRA -37°C	MEG/ OAT/ RTU	Pink to Fluorescent Orange	• Coolelf Auto Supra -37°C Contains No Silicates, Phosphates, Chromates, Nitrites or Boron
	COOLELF SUPRA	MEG/ OAT/ RTU	Fluorescent Yellow	• Antifreeze Protection Temperature Above - 25°C. Completely Free from Phosphates, Amines, Nitrites, Boron, Nitrates and Silicates
Antifreeze	GLACELF AUTO SUPRA	MEG/ OAT/ Concreted	Pink to Fluorescent Orange	• To be Diluted in Demineralized Water to Form a Permanent Coolant % Volume of 33% 40% 50% Freezing Protection -20°C -26°C -37°C
	WT SUPRA	MEG/ OAT/ Concentrated	Colorless	• To be Diluted in Demineralized Water to Form a Permanent Coolant 5-10% by Volume • Specially Developed for Stationary Engines, Approved by MAN • MTU, MWM, ROLLS-ROYCE, WARTSILA, JENBACHER
	GLACELF PLUS EVO	Si-P-OAT	Light Red	• Designed for use in Modern Internal Combustion Engines (ICE), Hybrids and Indirect Cooling Systems of Battery Electric Vehicles (BEV), Recommended to use at least 35vol% of Glacelf Plus Evo with DM Water % Volume of 35% 40% 50% Freezing Protection -20°C -25°C -376.4°C
	Cooltech ECO	MEG/ OAT	Green	• For Normal Applications, 1:3 Ratio of COOLTECH ECO can be Used • For Severe Applications, COOLTECH ECO can be Used Directly. Not Suitable for use in Below 0°C Operating Conditions when Mixed with Water

* Refer Product Data Sheet for specific OEM Approvals



GREASES

Type	Product Name	Characteristics						
		Soap+ Base Oil	NLGI Grades	Operating Range	Base Oil Viscosity @40°C	Drop Point°C	Color	Application Note
Lithium	LEX EP 2	Lithium + Mineral	2	-20°C to +120°C	150	> 185	Amber	Multipurpose Grease NLGI 2
	LEX 3	Lithium + Mineral	3	-25°C to +120°C	120	> 185	Light Brown	Multipurpose Grease NLGI 3
	Multis XL 3+	Lithium + Mineral	3	-25°C to +120°C	150	> 190	Crimson Red	Multipurpose Grease NLGI 3
	Grease DAG 1 A	Lithium + Mineral	1	-20°C to +120°C	200	> 180	Light Brown	Lubrication of Roller Bearings, Needle Thrust Bearings and Needle Cages, Specially Designed for Automotive Assembly Bearings
	Mutis HP 2 Moly	Lithium + Mineral + MoS ₂ (3%)	2	-20°C to +120°C	340	> 190	Black	MULTIS HP 2 MOLY Range (3%) are Multipurpose Greases Developed Especially for all Mining Equipment
	GRAISSE F 9702	Lithium + PAO (Synthetic)	2	-60°C to +120°C	18	> 200	Pale Beige	Suitable for the Lubrication of Reducers, Slides or other Adjustment, Mechanisms Found in Automotive Components
Lithium-Calcium	MULTIS EP 2	Lithium Calcium + Mineral	2	-25°C to +120°C	220	>190	Amber	Mixed Soap Multipurpose Grease, Formulated for Lubrication of Loaded Slide-, Ball-, and Roller-bearings, Wheel Bearings, Universal Joints, Chassis, and Various Shock Loaded or Vibrating Applications in Transport, Agriculture and Off-road Equipment, Operating in Wet, Dusty and/ or Dry Conditions. NLGI Grade to be Selected as per Application Requirement
	MULTIS EP 000 MULTIS EP 00 MULTIS EP 0 MULTIS EP 1 MULTIS EP 3	Lithium Calcium + Mineral	000 00 0 1 3	-25°C to +120°C	150	> 190	Brown	
	MULTIS MS 2	Lithium Calcium + Mineral + MoS ₂	2	-25°C to +130°C	150	> 190	Dark Grey	Grease with Mos ₂ as Solid Lubricant, Suitable for Lubrication of Various Shock Loaded or Vibrating Applications. Takes Care of Boundary Lubrication at High Pressures and High Temperatures. Presence of Molybdenum Disulfide Guarantees Good Lubrication, and Avoid any Jamming or Sticking
	GRAISSE N 3924 (Steering rack grease)	Lithium Calcuim + Mineral	2	-40°C to +120°C	55	> 160	Light Brown	Approved by PSA for their Integrated Steering Rack

* Refer Product Data Sheet for specific OEM Approvals



GREASES

Type	Product Name	Characteristics						
		Soap+ Base Oil	NLGI Grades	Operating Range	Base Oil Viscosity @40°C	Drop Point°C	Color	Application Note
Lithium Complex	Multis XL3 Premium +	Lithium Complex + Mineral	2	-25°C to +120°C	220	> 230	Crimson Red	High Performance Grease Formulated for Lubrication of all kinds of Universal Applications, 100 KM
	Multis Complex EP 2 Multis Complex EP 3	Lithium Complex + Mineral	2, 3	-20°C to +160°C	165	> 275	Red/Dark Brown	High Temperature Lithium Complex Grease
	Multis Complex HV 2	Lithium Complex + Mineral	2	-30°C to +160°C	340	> 260	Green	Lithium Complex Grease for High Load, High Temperature Application
	Multis Complex HV 2 Moly	Lithium Complex + Mineral + MoS2(3%)					Grey	Lithium Complex Grease with Moly for Shock Load and Application with Vibrations
	Multis Complex XHV 2 Moly	Lithium Complex + Mineral + MoS2 (3%)	2	-20°C to +160°C	800	> 240	Black	Multis Complex XHV 2 Moly is an Extreme Pressure and Anti-wear Grease Containing Solid Lubricants Consisting of 3% MoS2 and Special (5% Solid Lubricants)
	Multis Complex SHD 220	Lithium Complex + Synthetic (PAO)	2	-50 to 160 °C	220	> 275	Yellow	High Performance Lithium Complex Synthetic Grease
ALX	Copal OGL 0	Aluminum Complex + Mineral	0-00	-20°C to +150°C	1000	> 190	Black	Designed for the use on Open Gears

* Refer Product Data Sheet for specific OEM Approvals



GREASES

Type	Product Name	Characteristics						
		Soap+ Base Oil	NLGI Grades	Operating Range	Base Oil Viscosity @40°C	Drop Point°C	Color	Application Note
Polyurea	Altis MV2	Polyurea + Mineral	2	-20°C to +160°C	160	> 240	Green	Suitable for Extended Lubrication Intervals for Applications Running under Severe Conditions, Excellent Thermal Stability Linked with Excellent Reversibility
	Altis EM 2	Polyurea + Mineral	2	-20°C to +160°C	110	> 260	Green	Designed for the Lubrication of Electrical Motor Bearings. Suitable for Generators, Bearings of Extraction Fans for Hot Gas or Steam, Bearings of Dryers, Pumps, Oven Conveyors
	STATERMELF EP 2	Polyurea + Synthetic (PAO)	2	-40°C to +180°C	54	240	Light Brown	Polyurea Synthetic Grease for Roller Bearings Operating at Very Low and Very High Temperatures
	Altis SH 2	Synthetic (PAO) + Polyurea	2	-40°C to +180°C	80	> 260	Yellow	A Top of the Range Synthetic Grease Designed for Factory Fill and Sealed-for-life Applications. Also Suitable for Lubrication of Bearings, Slides, Racks Subjected to High Temperatures
Clay	CALORIS MS 23	Clay + Mineral + MoS2	2-3	-15°C to +160°C	500	Non Dropping	Black	Lubrication of Slow Moving Mechanisms Subjected to Very High Temperatures And Repeated Shocks. The Presence of Molybdenum Disulfide will Guarantee Good Lubrication, and Avoid any Jamming or Sticking. Allows Peak Temperatures up to 220°C

* Refer Product Data Sheet for specific OEM Approvals



GREASES

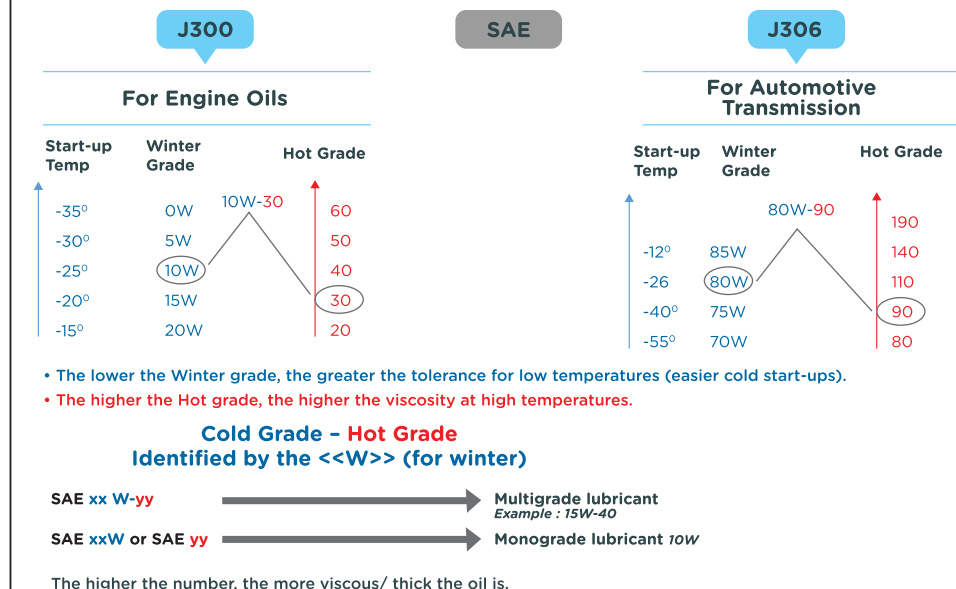
Type	Product Name	Characteristics						
		Soap+ Base Oil	NLGI Grades	Operating Range	Base Oil Viscosity @40°C	Drop Point°C	Color	Application Note
Calcium Sulphonate Complex	CERAN XM 100 CERAN XM 220 CERAN XM 460	Calcium Sulphate Complex + Mineral	1.5	-30°C to +180°C	100/220/460	> 300	Light Brown	• Extreme-pressure Water Resistant High Temperature “New Generation” Calcium Sulfonate Complex Grease • Suitable for the Lubrication of all kinds of Components Subject to High Loads and Temperatures, Shocks, Working in Conditions where the Grease is in Frequent Contact with Water (Even Sea Water due to Enhanced Antirust Performances)
	CERAN CA		0	-25°C to +150°C	325	> 300	Brown	• Heavy Duty Grease Designed for use on Slide Rails, Metal Cables, Wire Ropes, Winches, Open Gears and Chains Working under Severe Circumstances
	CERAN AD PLUS		0/1	-20°C to +150°C	> 1700	> 250	Dark Brown	• Used in Cement Works, Mines and Quarries, Ports (e.g. Travelling Cranes) Off Shore, Marine, and other “Heavy” Industry Applications • CERAN AD PLUS is Adapted for the Static Protection of Spare Parts
	CERAN MS	Calcium Sulphate Complex + Mineral + MoS ₂	1-2	-20°C to +180°C	650	> 300	Anthracite	• Suitable for the Lubrication of all kinds of Components Subject to High Loads, Shocks, Working in Conditions where the Grease is in Frequent Contact with Water, e.g. Travelling Cranes, Crown Wheels, Press Joints, Conveyors, Gear Couplings etc. in a Multitude of Industrial Applications • Suitable for Boundary Lubrication at High Pressures and High Temperatures. In case of Accidental Overheating, the Presence of Molybdenum Disulfide will Guarantee Good Lubrication, and Avoid any Jamming or Sticking
	CERAN XS 80 CERAN XS 320	Calcium Sulphate Complex + Synthetic	1-2	-35°C to +180°C	80 320	>300	Light Brown	• Synthetic Heavy Duty Extreme Pressure Grease, Specially Designed for Applications working under Low Temperatures Conditions and Heavy Loads • Pre-eminently Suitable for Lubrication of Industrial, and ‘Heavy Duty’ Off-road Applications Working in Low Temperature Environments

* Refer Product Data Sheet for specific OEM Approvals

TECHNICAL DATA

MEASURING KINEMATIC VISCOSITY					
In the international measurement system, kinematic viscosity is expressed in mm ² per second.					
ISO VG					
The international ISO VG classification allows classification of oils according to viscosity. The ISO VG grade corresponds by convention to the median point of a kinematic viscosity interval in mm ² /s at 40°C.					
ISO CLASSIFICATION DES LUBRICANTS AS A FUNCTION OF THEIR VISCOSITY (ISO 3448 STANDARD)				NLGI GRADE	
ISO viscosity class	Median kinematic viscosity at 40 °C in mm ² /s	Kinematic viscosity range at 40 °C in mm ² /s		The NLGI (National Lubricating Grease Institute) grade expresses the consistence of greases. Classification is carried out based on « worked penetration » at 25 °C.	
		Mini	Maxi	NLGI grade	Worked penetration at 25 °C (1/10 th mm)
ISO VG 2	2.2	1.98	2.42	000	445 - 475
ISO VG 3	3.2	2.88	3.52	00	400 - 430
ISO VG 5	4.6	4.14	5.06	0	355 - 385
ISO VG 7	6.8	6.12	7.48	1	310 - 340
ISO VG 10	10	9	11	2	265 - 295
ISO VG 15	15	13.5	16.5	3	220 - 250
ISO VG 22	22	19.8	24.2	Grease are identified by : Soap I Base oil type I Base oil viscosity NLGI I Solid Lubricant (Mos2)	
ISO VG 32	32	28.8	35.2		
ISO VG 46	46	41.4	50.6		
ISO VG 68	68	61.2	74.8		
ISO VG 100	100	90	110	ABBREVIATIONS	
ISO VG 150	150	135	165	• HACCP: "Hazard Analysis and Critical Control Point". A risk analysis and critical control point method, in the Agrifood Industry. • HSE: Health, Safety, Environment.	
ISO VG 220	220	198	242		
ISO VG 320	320	288	352	• FZG: Forschung für ZahnradGetriebe. Method for assessing the extreme pressure properties of lubricants, ISO 14635 standard. • PAG: Poly Alkylene Glycols. • PAO: Polyalphaolefins. • POE: Polyol Esters. • TOST: Turbine Oil Stability Test, ASTM D943 standard.	
ISO VG 460	460	414	506		
ISO VG 680	680	612	748		
ISO VG 1000	1000	900	1100		
ISO VG 1500	1500	1350	1650		
ISO VG 2200	2200	1980	2420		
ISO VG 3200	3200	2880	3520		

Automotive Viscosities Classification

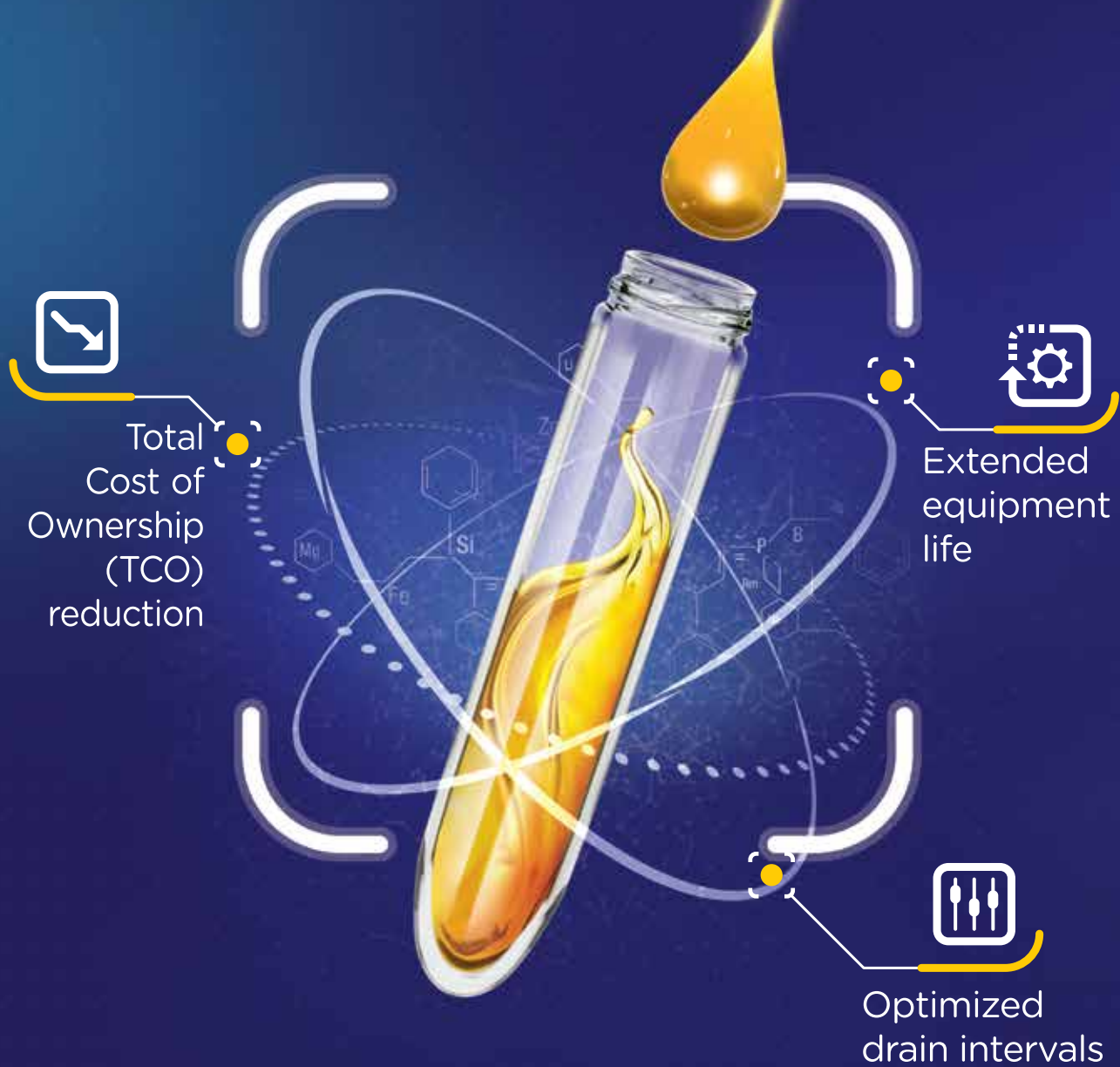


Shelf Life Guideline

- Industrial Products
 - Mineral-based lubricants : 5 years
 - Polyglycol-based lubricants : 3 years
 - PAO & Ester-based lubricants : 5 years
 - Food lubricants (NEVASTANE) : 5 years
 - All automotive lubricants, engine oils, gear oils : 3 years
 - Coolants and antifreeze : 5 years
 - Neat-oil metalworking fluids, stamping oils, protective oils and electro erosion oils : 3 years
 - Water-soluble metalworking oils (cutting, deformation, quenching fluids and detergents) : 12 months
 - GREASE (NLGI ≥ 1)
 - Lithium, lithium/ calcium, complex lithium & complex calcium sulfonate based greases and PFPE-based greases : 3 years
 - Calcium, complex calcium & complex aluminum based greases, polyurea greases, bentonite and silicone greases : 2 years
 - Greases with NLGI grades 000, 00, 0 All thickeners : 2 years
- * Please cross check with technical team for specific products

For detailed information please refer PDS(Product Data Sheet) : <https://totalenergies.in/business/industrial-lubricants/our-products>

TotalEnergies India for Access MSDS (Material Safety Data Sheet) : <https://sdstotalms.total.com/totalpullwebsite/>



LubAnac

Let your oil
do the talking



TotalEnergies

A major player

With our production, supply chain and commercial presence in more than 160 countries, we deliver a full range of lubricants.

Support and partnership

Thanks to local technical presence, we provide a high level of service to optimize your Total Cost of Ownership.

References & OEMs

TotalEnergies Lubricants cooperates with equipment manufacturers to create high-technology products for optimal performance and production of your machinery.

5

good reasons for choosing TotalEnergies Lubricants

Quality and environment

TotalEnergies Lubricants ISO 9001 and 14001 certifications are the guarantee of a long-term commitment to quality and environment. From the initial design stage, our R&D teams seek to develop products that minimize toxicity risks and environmental impact.

Innovation & Research

TotalEnergies Lubricants invests in biotechnologies to find the most suitable components to reach energy efficiency through formulations designed in its Research Centers.

Lubrication solutions for industrail applications

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