

PANOLIN[®] +
Swiss Oil Technology

GREENMACHINE[®]

High Performance
Environmentally Considerate Lubricants
for your machine



PANOLIN[®] +
Swiss Oil Technology

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Company profile

- Founded in 1949 by Bernhard Lämmle
- Headquarters in Switzerland
- Inhouse R&D (Research and Development)
- Core competence: high performing ECLs (Environmentally Considerate Lubricants) since 1983
- Worldwide availability through PANOLIN warehouses and distribution network



Bernhard Lämmle
*1910 † 1986



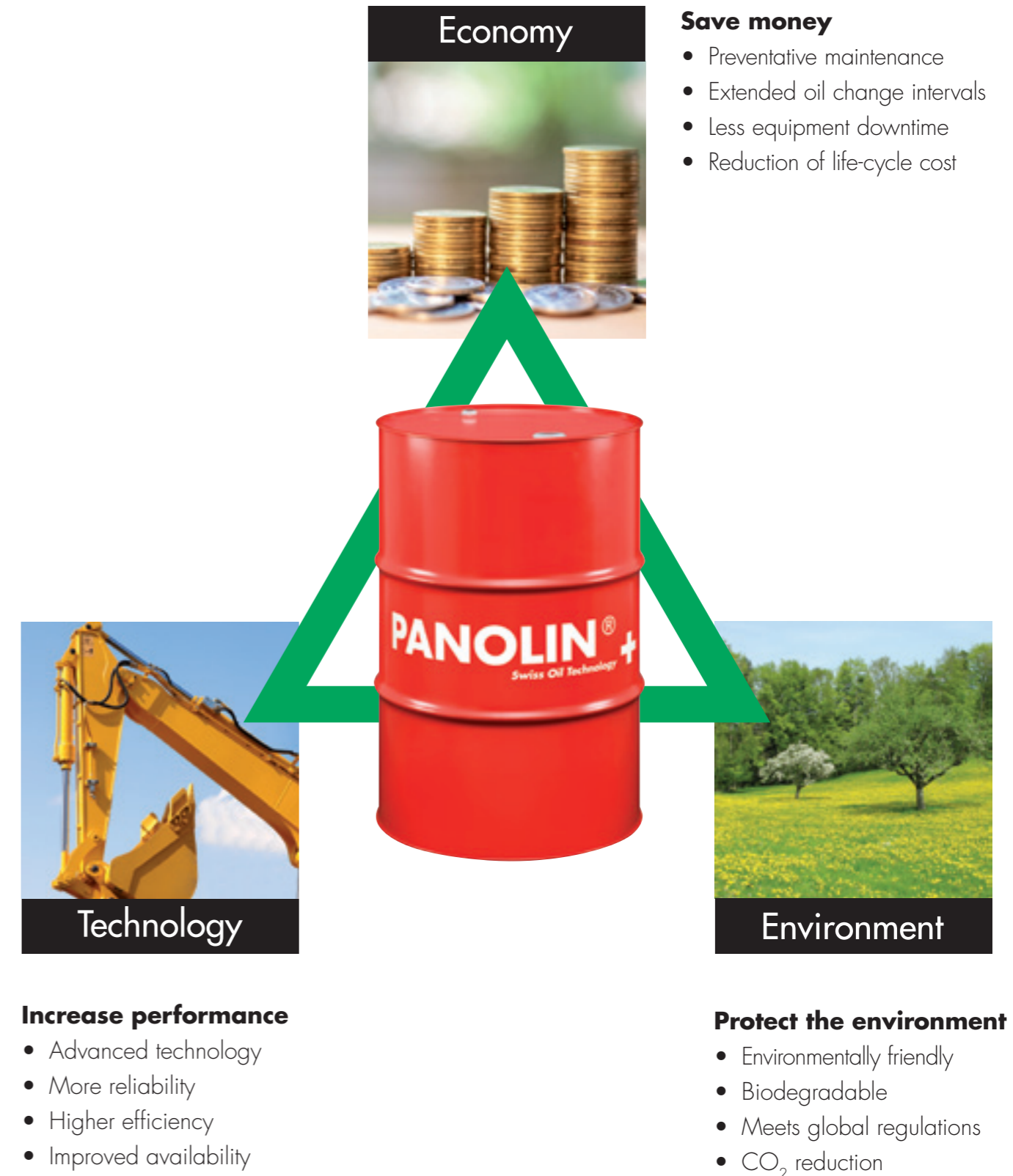
Market areas: Switzerland and Principality of Liechtenstein.

All international business.

R&D and production.

We want to standardize high performing ECLs globally to preserve the environment.

The concept



Only economically viable, technically mature and environmentally friendly concepts are truly sustainable.

Your benefits

Over 35 years of experience in biodegradable oil technology



Technology

Increase performance

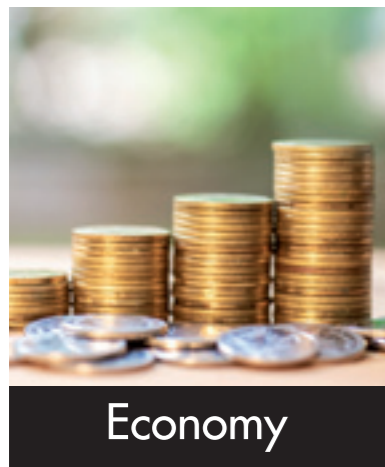
- Fully saturated synthetic ester based lubricants made for heavy duty applications
- High thermal and shear stability
- Excellent oxidation stability
- Outstanding wear and corrosion protection
- Hydrolytic stability – low acidity, non-emulsifying
- No deposits – protection of your system
- Numerous OEM approvals
- Higher efficiency – higher output of the equipment



Environment

Protect the environment

- Readily biodegradable lubricants
- Minimally toxic
- CO₂ reduction due to less oil/fuel consumption; take advantage of the PANOLIN CO₂ calculator
- Compliant with global regulations and international eco-labels
- Beneficial for job tenders
- Supports your environmental compliance policy



Economy

Save money

- Robust and reliable lubricants
- Longer lifetime
- Extended oil change intervals
- Less equipment downtime
- Less maintenance cost
- Less waste disposal
- Lifetime fill potential
- Advantage through inhouse oil sample analysis

High Performance Environmentally Considerate Lubricants are our core competence since 1983.

Global acceptance through eco-labels

 United Kingdom	 Norway	 Denmark	 Germany	 Japan
 High bio-degradability South Korea	 Croatia	 Sweden	 Czech Republic	 USA
 Netherlands	 Europe	 Italy	 USA	 USA

Approved by leading manufacturers

						 Reliable solutions
						
						
						
						

Note Selection of OEMs that use, recommend or approve PANOLIN lubricants

References and industries



6 Construction



Agriculture



Railway



7 Forestry

Robust lubricants:
When downtime is not an option

Good to know:
That your lubricants are environmentally considerate

References and industries



Municipal machinery



Industrial manufacturing



Snow equipment



Telescopic cranes



Mobile cranes



Hydraulic systems



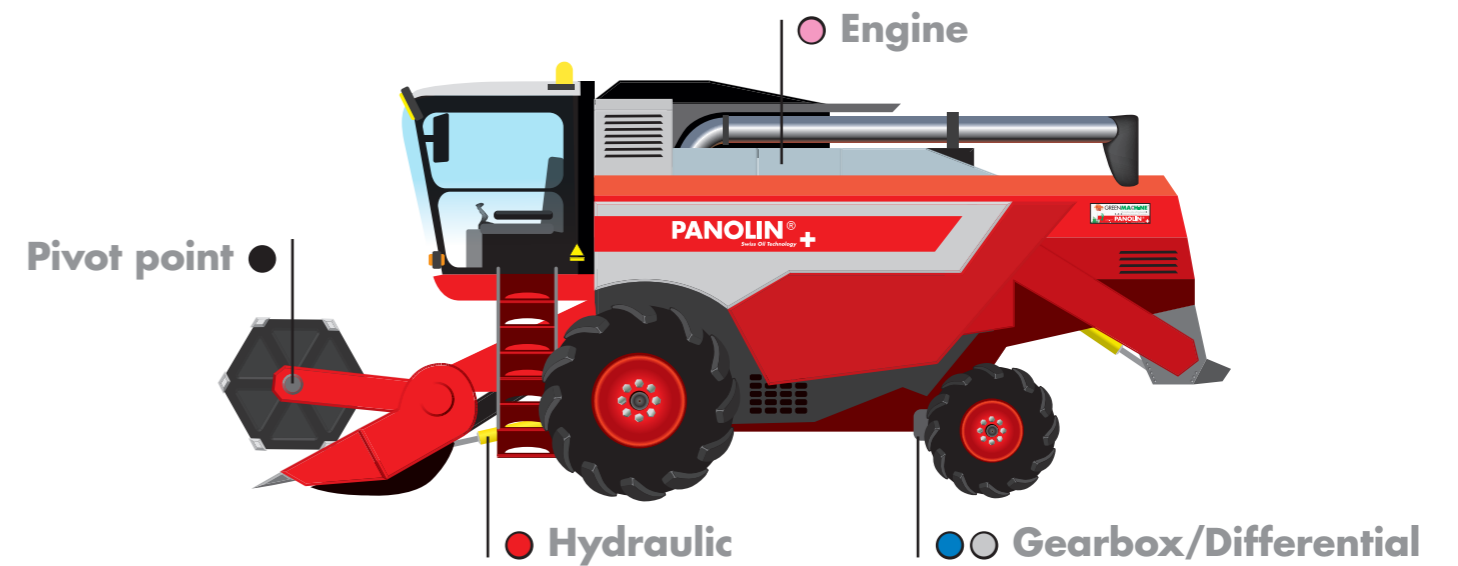
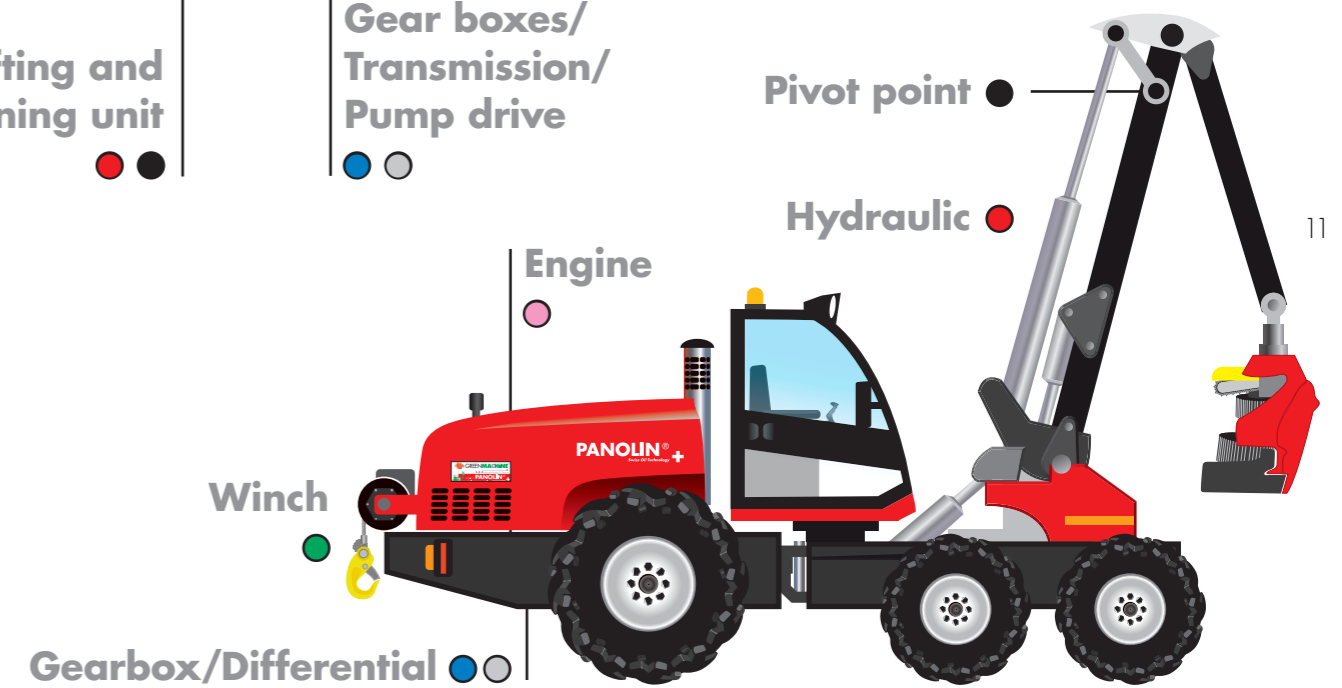
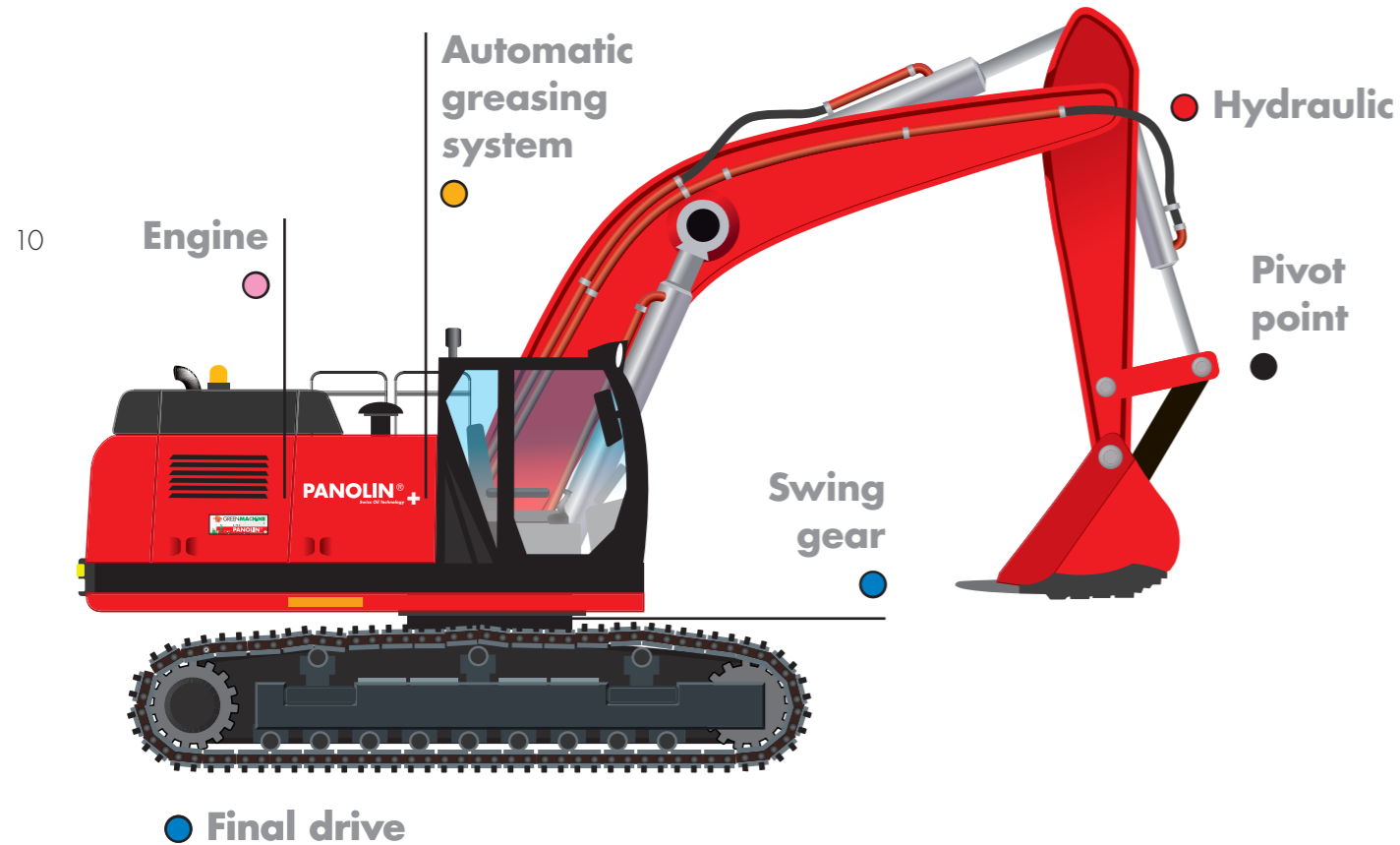
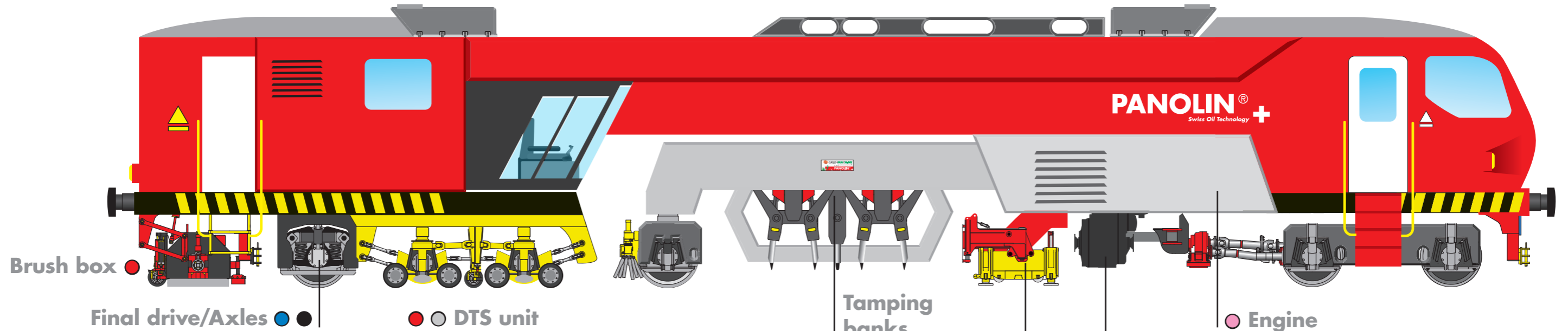
Drilling rigs



Ready for any challenge

No matter what industry:
We can make your machine a GREENMACHINE

Reliable lubricants:
To assure smooth operation



Product type	PANOLIN	Page
Hydraulic fluid	● HLP SYNTH/HLP SYNTH E/SPRINT/ORCON® SYNTH E	12/13
Gear oil	● EP GEAR SYNTH/BIOGEAR RS	14
UTTO lubricant	● BIOFLUID SBH-N/BIOFLUID ZFH	15
LowSAPS diesel engine oil	● ECOMOT/BIOMOT LX/LE-X	16
Cable/chain lubricant	● BIOTRACK E	17
EP universal grease	● BIOGREASE LL-EP 2/BIOGREASE EP 2	18
EP fluid grease	● MARGREASE W EP 0	19

PANOLIN HLP SYNTH

Hydraulic fluid – readily biodegradable, saturated synthetic esters

Features and benefits

- Fully synthetic, high-performance, readily biodegradable, zinc-free and environmentally friendly hydraulic fluid, based on saturated synthetic esters with special additive technology
- Minimally toxic
- Extremely long oil-change interval «lifetime filling» – enables higher machine efficiency
- Increases availability and reliability of your equipment due to greater power reserves
- Outstanding extreme-pressure characteristics
- Excellent cold flow characteristics (extremely low pour point)
- Prevents gumming and deposits of ageing products even under high thermal load
- Excellent oxidation resistance at high temperatures
- Great dielectric strength

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- ASTM D-6046-98a: P_{W1} , T_{W1} , T_{G1}
- Biodegradability acc. to OECD 301 B: > 60%
- CO₂ reduction thanks to longer oil-change intervals
- Eco Labels from: Czech Republic, Germany, Italy, Japan, Korea, Sweden
- US EPA VIDA (Vessel Incidental Discharge Act), VGP 2013 (Vessel General Permit)
- Water hazard classifications acc. to AwSV: awg (35020, 35030, 35040), WGK 1 (35050, 35060)

Specifications

ASTM D 943 (Dry TOST test) > 5000 h / ASTM D 2070 (modified, 1 680 h) / ASTM D 8029
 FZG Test A/8.3/90 load stage 12
 ISO 15 380/HEES
 Vickers V104 C



Technical data (mean values, subject to normal tolerances – TDS 20210422)

PANOLIN HLP SYNTH	Product No.	Density g/cm ³ 15°C	Viscosity in mm ² /s 40°C 100°C	Flashpoint COC in °C	Pour point in °C	Viscosity index	Iodine No.
15	35020	0.925	15.6 3.9	222	< -60	151	< 6
22	35030	0.916	20.5 4.5	220	-58	136	< 6
32	35040	0.915	33.3 6.3	240	-58	142	< 7
46	35050	0.916	46.7 8.2	240	-57	150	< 10
68	35060	0.921	68.6 11.1	240	-55	154	< 12

PANOLIN HLP SYNTH E

Hydraulic fluid – readily biodegradable, saturated synthetic esters

Features and benefits

- Fully synthetic, high-performance, readily biodegradable, zinc-free and environmentally friendly hydraulic fluid, based on renewable saturated synthetic esters with special additive technology
- Minimally toxic
- Extremely long oil-change interval «lifetime filling» – enables higher machine efficiency
- Prevents gumming and deposits of ageing products even under high thermal load
- Excellent cold flow characteristics (extremely low pour point)
- Eco-technically fully mixable and compatible with PANOLIN HLP SYNTH

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- Biodegradability acc. to OECD 301 B: > 60%
- CO₂ reduction thanks to longer oil-change intervals
- Eco Labels from: Croatia, Germany, Italy, Netherlands (35635, 35640, 35645), Poland, Sweden (35625, 35630, 35635, 35640), USA
- EN 16 807
- EU Ecolabel – (35625: DE/027/052, 35630: DE/027/053, 35635: DE/027/054, 35640: DE/027/055, 35645: DE/027/056)
- Water hazard classifications acc. to AwSV: WGK 1

Specifications

ASTM D 8029
 FZG Test A/8.3/90 load stage 12 (35630, 35635, 35640)
 ISO 15 380/HEES



Technical data (mean values, subject to normal tolerances – TDS 20210422)

PANOLIN HLP SYNTH E	Product No.	Density g/cm ³ 15°C	Viscosity in mm ² /s 40°C 100°C	Flashpoint COC in °C	Pour point in °C	Viscosity index	Iodine No.
15	35625	0.919	15.7 3.8	226	-36	142	< 5
22	35630	0.936	21.2 4.7	245	-57	141	< 5
32	35635	0.937	32.3 6.5	253	-54	160	< 7
46	35640	0.934	45.7 8.6	259	-51	168	< 15
68	35645	0.934	67.0 11.7	222	-48	171	< 23

PANOLIN SPRINT

Hydraulic fluid – readily biodegradable, synthetic esters

Features and benefits

- Fully synthetic, environmentally friendly and readily biodegradable hydraulic fluid
- Based on proven PANOLIN technology
- Ester blend with modified, saturated and unsaturated esters
- Minimally toxic
- Outstanding anti-wear and anti-corrosion properties
- Prevents deposits in the hydraulic system
- Excellent cold flow characteristics
- Outstanding extreme-pressure characteristics

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- Biodegradability acc. to OECD 301 B: > 60%
- EN 16 807
- US EPA VIDA (Vessel Incidental Discharge Act), VGP 2013 (Vessel General Permit)
- Water hazard classifications acc. to AwSV: WGK 1

Specifications

ASTM D943 (Dry TOST test) > 2000 h
 ASTM D8029
 FZG Test A/8.3/90 load stage 12
 ISO 15 380/HEES
 Vickers V104 C

Technical data (mean values, subject to normal tolerances – TDS 20201023)

PANOLIN SPRINT	Product No.	Density g/cm ³ 15°C	Viscosity in mm ² /s 40°C 100°C	Flashpoint COC in °C	Pour point in °C	Viscosity index
32	34544	0.921	34.4 7.5	262	-40	192
46	34546	0.922	47.8 9.3	274	-36	182
68	34548	0.912	71.6 10.8	265	-40	140

PANOLIN ORCON SYNTH E

Hydraulic fluid – readily biodegradable, saturated synthetic esters, NSF H1

Features and benefits

- Fully synthetic and readily biodegradable hydraulic fluid, based on renewable saturated synthetic esters developed for the food, pharmaceutical and animal feed industries
- All ingredients fully comply with the strict NSF guidelines (NSF Nonfood Compounds Registration)
- Acceptable as a lubricant with incidental food contact according to NSF H1 for use in and around food processing areas
- Mineral oil free
- Extended oil-change and service intervals
- High polarity that protects metal surfaces
- Excellent oxidation resistance at high temperatures
- Great hydrolytic stability
- No varnish due to thermal oxidation
- Excellent corrosion protection, develops no corrosive components even after extended operations at high temperature

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- Biodegradability acc. to OECD 301 B: > 60%
- CO₂ reduction thanks to longer oil-change intervals
- Croatia Eco-Label
- EN 16 807
- EU Ecolabel – DE/027/088
- Water hazard classifications acc. to AwSV: WGK 1

Specifications

ASTM D 8029
 FZG Test A/8.3/90 load stage > 12
 ISO 15 380/HEES
 Vickers V104 C



Technical data (mean values, subject to normal tolerances – TDS 20201023)

PANOLIN ORCON® SYNTH E	Product No.	Density g/cm ³ 15°C	Viscosity in mm ² /s 40°C 100°C	Flashpoint COC in °C	Pour point in °C	Viscosity index	Iodine No.
46	37316	0.960	48.8 8.5	242	< -57	151	< 10

PANOLIN EP GEAR SYNTH

Industrial gear oil – readily biodegradable, saturated synthetic esters

Features and benefits

- Fully synthetic, high-performance and readily biodegradable lubricant, based on saturated synthetic esters for industrial gear boxes, roller bearings and slide bearings
- Minimally toxic
- Reduces micro-wear of surface roughness on friction surfaces in aggregates
- Outstanding extreme-pressure characteristics
- Excellent oxidation resistance at high temperatures
- Prevents gumming even under high thermal load
- Better adhesion to metal surfaces than mineral-oil based gear oils
- Outstanding anti-wear and anti-corrosion properties
- Extreme shear-resistant multigrade gear oil with a wider thermal operating range than mineral oil

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- Biodegradability acc. to OECD 301 F: > 60% (27325, 27335)
- Biodegradability acc. to OECD 301 F: > 60% (27320, 27330: read across)
- US EPA VIDA (Vessel Incidental Discharge Act), VGP 2013 (Vessel General Permit)
- Water hazard classifications acc. to AwSV: WGK 1

Specifications

DIN 51 502/CLP E, 51 517/CLP E
FZG Test A/16.6/140 load stage 12

Technical data (mean values, subject to normal tolerances – TDS 20201208)

PANOLIN EP GEAR SYNTH	Product No.	Density g/cm ³ 15°C	Viscosity in mm ² /s		Flashpoint COC in °C	Pour point in °C	Viscosity index
			40°C	100°C			
68	27320	0.919	69.0	10.8	290	-54	146
100	27325	0.920	100.0	14.1	300	-45	144
150	27330	0.921	150.0	18.8	300	-43	142
220	27335	0.923	220.0	24.0	300	-41	136

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PANOLIN BIOGEAR RS

Gear oil – readily biodegradable, saturated synthetic esters

Features and benefits

- Fully synthetic and environmentally friendly gear oil, based on renewable saturated synthetic esters for gearboxes, differentials and final drives
- Minimally toxic
- Outstanding anti-wear and anti-corrosion properties
- Extended oil-change intervals
- Prevents gumming and deposits even under high thermal load
- Excellent oxidation resistance at high temperatures

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- Biodegradability acc. to OECD 301 B: > 60%

Specification

API GL-4/5

Technical data (mean values, subject to normal tolerances – TDS 20201023)

PANOLIN BIOGEAR RS	Product No.	Density g/cm ³ 15°C	Viscosity in mm ² /s		Flashpoint COC in °C	Pour point in °C	Viscosity index
			40°C	100°C			
SAE 80W-90	25325	0.920	92.8	15.6	173	-33	180

PANOLIN BIOFLUID SBH-N

UTTO lubricant – readily biodegradable, saturated synthetic esters

Features and benefits

- Fully synthetic and readily biodegradable Universal Tractor Transmission Oil (UTTO), based on saturated synthetic esters for construction, agriculture, forestry and railway trackbuilding machinery
- Minimally toxic
- Excellent cold flow characteristics (extremely low pour point)
- Much longer service life and greater power reserves than mineral oil based hydraulic fluids
- Excellent oxidation resistance at high temperatures
- With viscosity characteristics and additives that prevent hydrodynamic brake rattling
- PANOLIN BIOFLUID SBH-N 10W-30 – fully compatible with predecessor product: PANOLIN BIOFLUID SBH 10W-30
- PANOLIN BIOFLUID SBH-N 46 – fully compatible with predecessor product: PANOLIN BIOFLUID SBH 46

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- Biodegradability acc. to OECD 301 B: > 60%
- Water hazard classifications acc. to AwSV: WGK 1

Specification

FZG Test A/8.3/90 load stage 11

Technical data (mean values, subject to normal tolerances – TDS 20201023)

PANOLIN BIOFLUID SBH-N	Product No.	Density g/cm ³ 15°C	Viscosity in mm ² /s		Flashpoint COC in °C	Pour point in °C	Viscosity index
			40°C	100°C			
SAE 10W-30	26815	0.923	60.6	10.3	220	-55	160
ISO 46	26817	0.926	46.4	8.3	218	< -60	156

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PANOLIN BIOFLUID ZFH

UTTO lubricant – readily biodegradable, saturated synthetic esters

Features and benefits

- Fully synthetic and readily biodegradable Universal Tractor Transmission Oil (UTTO), based on saturated synthetic esters for combined use with gearboxes, hydraulic systems and hydrodynamic brakes
- Minimally toxic
- Developed in close collaboration with ZF Friedrichshafen: In Friedrichshafen extensive tests were carried out on various facilities, among other purposes to meet the high demands of ZF on both static and dynamic friction characteristics
- Extended oil-change intervals
- Reduces and in many cases eliminates deposits on friction discs/clutches
- Outstanding thermal-ageing stability
- Excellent cold flow characteristics (extremely low pour point)
- Outstanding anti-wear and anti-corrosion properties

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- Biodegradability acc. to OECD 301 B: > 60%
- Water hazard classifications acc. to AwSV: WGK 1

Specification

FZG Test A/8.3/90 load stage 11

Technical data (mean values, subject to normal tolerances – TDS 20201023)

PANOLIN BIOFLUID ZFH	Product No.	Density g/cm ³ 15°C	Viscosity in mm ² /s		Flashpoint COC in °C	Pour point in °C	Viscosity index
			40°C	100°C			
ISO 68/SAE 10W-30	26820	0.923	60.3	10.1	244	-55	155

PANOLIN ECOMOT 5W-30

LowSAPS diesel engine oil – synthetic

Features and benefits

- Synthetic engine oil with excellent smooth-running properties (Fuel Economy) for modern environmentally friendly diesel engines up to Euro 6 classification
- Diesel engine oil with extremely low sulphate ash, phosphor and sulphur content
- The combination of synthetic base oils with special additive technology ensures extremely low oil consumption
- Sustainably prevents blockage of exhaust particle filters and corrosion of oxidation catalyzers
- Ensures excellent engine lubrication both at high operating temperatures and at extremely low ambient temperatures
- Prevents sludge formation and deposits of ageing products even under high thermal load

Environmental compatibility

- Biodegradable acc. to OECD 302 C: > 40%
- CO₂ reductive thanks to fuel-saving properties: > 0.8% compared to SAE 10W-40

Specifications

ACEA E6, E7, E9
API CJ-4/SN
CAT ECF-3, ECF-2, ECF-1-a
JASO DH-2



Technical data (mean values, subject to normal tolerances – TDS 20201023)

PANOLIN ECOMOT SAE 5W-30	Product No.	Density g/cm ³		Viscosity in mm ² /s		Flashpoint COC in °C	Pour point in °C	Viscosity index
		15°C	40°C	40°C	100°C			
07310	07310	0.853	68.7	11.6	217	-48	165	

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PANOLIN BIOMOT LX and LE-X

LowSAPS diesel engine oil – readily biodegradable, saturated synthetic esters

Features and benefits BIOMOT LX 10W-40

- Fully synthetic engine oil, based on saturated synthetic esters for the latest diesel engines
- Diesel engine oil with extremely low sulphate ash, phosphor and sulphur content
- The combination of synthetic base oils with special additive technology ensures extremely low oil consumption
- Sustainably prevents blockage of exhaust particle filters and corrosion of oxidation catalyzers
- Ensures excellent engine lubrication both at high operating temperatures and at extremely low ambient temperatures
- Prevents gumming and deposits of ageing products even under high thermal load
- Minimally toxic

Features and benefits BIOMOT LE-X 5W-30

- Fully synthetic, readily biodegradable and long-life engine oil, based on saturated synthetic esters for the latest diesel engines
- Diesel engine oil with extremely low sulphate ash, phosphor and sulphur content
- The combination of synthetic base oils with special additive technology ensures extremely low oil consumption
- Extended oil-change intervals
- Reduces friction and wear
- Excellent oxidation resistance at high temperatures
- Outstanding anti-wear and anti-corrosion properties
- Good lubricating film stability
- Minimally toxic

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- Biodegradability acc. to OECD 301 B: > 60%
- Water hazard classifications acc. to AwSV: WGK 1

Specifications

BIOMOT LX 10W-40 ACEA E6, E7, E9. API CJ-4/SN. CAT ECF-3, ECF-2, ECF-1-a. JASO DH-2.
BIOMOT LE-X 5W-30 ACEA E6, E7, E9. API CJ-4/CK-4.

Technical data (mean values, subject to normal tolerances – TDS LX 20201104; TDS LE-X 20201230)

PANOLIN BIOMOT LX SAE 10W-40 LE-X SAE 5W-30	Product No.	Density g/cm ³		Viscosity in mm ² /s		Flashpoint COC in °C	Pour point in °C	Viscosity index
		15°C	40°C	40°C	100°C			
07350	07350	0.920	91.1	14.3	> 220	-40	163	
07410	07410	0.928	63.6	12.1	228	-60	191	

PANOLIN BIOTRACK E

Cable/chain lubricant – readily biodegradable, synthetic esters

Features and benefits

- Fully synthetic and environmentally friendly cable/chain lubricant, based on renewable synthetic esters
- Minimally toxic
- Excellent oxidation resistance at high temperatures
- Reduces friction
- Very good adhesion

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- Biodegradability acc. to OECD 301 B: > 60%
- US EPA VIDA (Vessel Incidental Discharge Act), VGP 2013 (Vessel General Permit)
- Water hazard classifications acc. to AwSV: WGK 1

Technical data (mean values, subject to normal tolerances – TDS 20201104)

PANOLIN BIOTRACK E	Product No.	Density g/cm ³		Viscosity in mm ² /s		Flashpoint COC in °C	Pour point in °C	Viscosity index
		15°C	40°C	40°C	100°C			
68	54918	0.921	73.8	13.5	274	< -45	188	
320	54926	0.958	320.0	37.0	> 256	-36	164	
700	54930	0.966	750.0	77.6	> 250	-21	180	

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PANOLIN BIOGREASE LL-EP 2

EP universal grease – readily biodegradable, synthetic esters

Features and benefits

- Fully synthetic, readily biodegradable EP universal lubricating grease for exposed applications
- Excellent water wash-out resistance
- Minimally toxic
- Good mechanical stability
- Excellent oxidation resistance at high temperatures
- Outstanding anti-wear and anti-corrosion properties
- Wide temperature range
- Excellent load-bearing capacity due to special additive technology

Environmental compatibility

- Ecolabel «Der blaue Engel» • EU Ecolabel (DE/027/255) • KWF Label • Swedish standard 15 54 70 (pending)
- US EPA VIDA/VGP 2013



Technical data (mean values, subject to normal tolerances – TDS 20210330)

Product No.	72888
NLGI	2
Soap/thickener type	Lithium
Dropping point (IP 396)	> 190 °C
VKA calotte (ASTM D2266)	0.53 mm
VKA OK load (DIN 51 350)	3000 N
VKA weld load (DIN 51 350)	3200 N
Behavior vs. Water (DIN 51 807-1)	1– 90
Corrosion protection (EMCOR – DIN 51 802; dest. water)	0 – 0
Corrosion protection (EMCOR – DIN 51 802; synth. seawater)	0 – 0
Copper corrosion (DIN 51 811)	1
Water wash out (ASTM D1264)	7.4%
Operation temperature range (permanent)	– 30 °C to 120 °C
Designation (DIN 51502)	KPE 2 K–30
Base	Synthetic esters
Base oil viscosity at 40 °C	320
Colour	Beige

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PANOLIN BIOGREASE EP 2

EP universal grease – readily biodegradable, synthetic esters

Features and benefits

- Fully synthetic, readily biodegradable EP universal lubricating grease for exposed applications
- Minimally toxic
- Good mechanical stability
- Excellent oxidation resistance at high temperatures
- Outstanding anti-wear and anti-corrosion properties
- Good water resistance
- Wide temperature range
- Excellent load-bearing capacity due to special additive technology

Technical data (mean values, subject to normal tolerances – TDS 20201104)

Product No.	72868 – PANOLIN SHUTTLE BIOGREASE EP 2: 72878
NLGI	2
Soap/thickener type	Lithium
Dropping point (DIN ISO 2176)	> 180 °C
Penetration decrease (ASTM D217)	< 30 (1/10 mm)
VKA calotte (ASTM D2266)	0.442 mm
VKA OK load (DIN 51350)	2600 N
VKA weld load (DIN 51350)	2800 N
Behavior vs. Water (DIN 51807-1)	1
Corrosion protection (EMCOR - DIN 51802)	0 – 0
Copper corrosion (DIN 51811)	1
Water wash out (ASTM D1264)	4.19%
Operation temperature range (permanent)	–35 °C to 120 °C
Operation temperature (short time)	130 °C
Designation (DIN 51502)	KPE 2 K–30
Base	Synthetic esters
Base oil viscosity at 40 °C	100
Speed factor (n x dm)	450000 mm/min
Oxidation stability (ASTM D942)	8,0 psi
Colour	Yellow-brown
Environmental compatibility	Biodegradability acc. to OECD 301 B: > 60%, US EPA VIDA/VGP 2013

PANOLIN MARGREASE W EP 0

EP fluid grease – readily biodegradable, synthetic esters

Features and benefits

- Fully synthetic, readily biodegradable EP fluid grease for automatic injection systems
- Good water wash-out resistance
- Minimally toxic
- Good mechanical stability
- Outstanding anti-wear and anti-corrosion properties
- Wide temperature range

Environmental compatibility

- EU Ecolabel (pending)
- Swedish standard 15 54 70
- US EPA VIDA/VGP 2013



Technical data (mean values, subject to normal tolerances – TDS 20210414)

Product No.	72922
NLGI	0
Soap/thickener type	Anhydrous Calcium
Dropping point (IP 396)	> 140 °C
VKA OK load (DIN 51350)	3400 N
VKA weld load (DIN 51350)	3600 N
Behavior vs. Water (DIN 51807-1)	0
Copper corrosion (DIN 51811)	1
Operation temperature range (permanent)	– 40 °C to 100 °C
Designation (DIN 51502)	KPE 0 G–40
Base	Synthetic esters
Base oil viscosity at 40 °C	460
Colour	Yellow

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A good feeling:
Knowing that the lubricant is environmentally friendly

PANOLIN is a statement for

- Advanced Technology
- Environmental Responsibility
- Security

The sustainable PANOLIN concepts



GREENMACHINE®

GREENMARINE®



PANOLIN offers a wide range of high performance biodegradable lubricants for diverse applications. For further information please contact PANOLIN International Inc.

PANOLIN®
Swiss Oil Technology **+**

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