

# KLONDIKE Bio HEES Hydraulic Oils



## PRODUCT DESCRIPTION

KLONDIKE Bio HEES Hydraulic Oils are full synthetic, readily biodegradable, non-toxic, high performance hydraulic oils that meet industry requirements for environmentally acceptable lubricants (EAL). These advanced fluids are designed to give maximum protection and performance in hydraulic equipment used in environmentally sensitive areas.

## APPLICATIONS

KLONDIKE Bio HEES Hydraulic Oils are designed for maximum performance and system protection in industrial and mobile hydraulic equipment. Typical industries where this advanced technology is ideal for use include construction, mining, dredging, marine, agriculture, exploration, oil and gas, and production plant operations.

KLONDIKE Bio HEES Hydraulic Oils are designed for use in hydraulic systems utilizing vane, piston, and gear-type pumps including (but not limited to) systems referencing ISO 15380, HEPR in mobile and stationary use.

For optimum performance, always follow the viscosity grade recommendation of the system manufacturer.



## FEATURES AND BENEFITS

KLONDIKE Bio HEES Hydraulic Oils are readily biodegradable, non-toxic, and non-bio accumulative. The exclusive use of premium ester synthetic base stocks and ashless, zinc free additive technology ensures that, in the event of a spill, the product will degrade in excess of 60% within 28 days; minimizing any potential impact to the environment. This standard is outlined in OECD 301B for a product to qualify for readily biodegradable status.

KLONDIKE Bio HEES Hydraulic Oils are designed to give maximum anti wear and extreme pressure protection in hydraulic equipment used in both mobile and stationary hydraulic pumps in high-performance industrial applications. Technically advanced chemistry provides exceptional oxidation stability, water separability, foam suppression, and protection against wear, rust and corrosion. High VI synthetic formulations allow operation over a wide ambient and operating temperature range and ensure outstanding operating system efficiency.

KLONDIKE Bio HEES Hydraulic Oils are designed to exceed the performance expectations of conventional, antiwear hydraulic oils, while ensuring the highest level of environmental protection in case of leakage or accidental discharge into the natural environment.

KLONDIKE Bio HEES Hydraulic Oils provides value through the following benefits:

- **Environmentally acceptable** – fluid chemistry meets the requirements of the EPA Vessel General Permit (VGP) for biodegradation, toxicity, bioaccumulation.
- **Advanced performance** – Ashless formulation provides outstanding protection for hydraulic pumps and systems for high operating efficiency.
- **Long oil life** – ester synthetic base is highly resistant to oxidation at high temperatures for maximum service life (relative to vegetable-based fluid technologies).
- **Extreme temperature performance** – High viscosity index and very low pour point ensures good low temperature fluidity and pumpability.
- **Zinc-free** – Suited for applications involving yellow metals found in some hydraulic pumps.



# KLONDIKE Bio HEES Hydraulic Oils

## TYPICAL TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	BIO HEES 32	BIO HEES 46
ISO Grade		32	46
Viscosity cSt. @ 40°C	ASTM D445	33.6	45.86
Viscosity cSt. @ 100°C	ASTM D445	8.0	10.96
Viscosity Index	ASTM D2270	223	241
Pour Point	ASTM D97	-58	-54
Biodegradability, 28 Days	OECD 301B	>76%	> 76%
Biodegradable status	OECD 301B	Readily	Readily

All stated physical properties are typical of standard production and may vary.

### HEALTH AND SAFETY

This product is not expected to have adverse health implications when used for its intended application. For detailed information on safe handling of this product, refer to its Material Safety Data Sheet (MSDS). To obtain an MSDS on this or any other KLONDIKE product, please visit [www.klondikelubricants.com](http://www.klondikelubricants.com) or call 1-877-293-4691. When disposing of used product, be responsible to the environment.

### PRODUCT NUMBERS

BIO HEES HYDRAULIC OILS	Pail: 18.9 L / 5 GAL	KL-BL3380
	Drum: 208 L / 55 GAL	KL-BL3390

### BRAVING THE FORCE OF MOVEMENT

KLONDIKE stands for robust, reliable, high quality products tailored to suit the requirements of the on- and off-road heavy duty, automotive and industrial markets. Our solutions span from trend-setting retail lubricants through small-batch custom formulations to large bulk orders ready for immediate delivery.

The extensive KLONDIKE product range includes premium oils, lubricants, greases, chemicals and specialty fluids formulated with virgin base oils and protective inhibitors. Designed to handle the most extreme climates and operating conditions, the KLONDIKE products protect and extend the life of your equipment, optimize performance and improve productivity while meeting and exceeding industry standards and specifications.

**KLONDIKE Lubricants Corporation**



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# KLONDIKE ENVIRO AW Inherently Biodegradable Hydraulic Fluids



## PRODUCT DESCRIPTION

KLONDIKE ENVIRO AW Inherently Biodegradable Hydraulic Fluids are premium, long life formulations designed for high performance hydraulic systems. These advanced fluids provide outstanding operating and maintenance benefits for increased productivity and long service life.

## APPLICATIONS

KLONDIKE ENVIRO AW Inherently Biodegradable Hydraulic Fluids are designed as an environmentally safer alternative to conventional zinc based hydraulic fluid and is an excellent high pressure, high temperature power transfer fluid where vane, piston, and gear pumps are utilized. This fluid may also be used as a general purpose lubricant where straight mineral oils and conventional rust and oxidation inhibited oils are recommended in the appropriate viscosity grade. Such industrial applications may include (but are not limited to) machine tools, presses, die casting and injection molding machines among others.

Typical applications for KLONDIKE ENVIRO AW Inherently Biodegradable Hydraulic Fluids include (but are not limited to):

- Heavy duty mobile and stationary equipment in exploration, construction, agriculture, marine, logging and mining industries.
- Specialized hydraulic pump systems with silver bearings as there is no zinc to displace the silver.
- Multi-use industrial equipment lubricant for plain/anti-friction bearings, air-line lubricators and other such uses.



## FEATURES AND BENEFITS

KLONDIKE ENVIRO AW Inherently Biodegradable Hydraulic Fluids are formulated using ultra-pure paraffinic base oils and high performance ashless additive technology. This shear stable fluid has outstanding resistance to viscosity breakdown in the presence of heavy mechanical stress, high temperature, and high pressure resulting in optimum viscosity retention across the life of the fluid.

Zinc Free (ashless) additive technology utilizes specialized antiwear and friction modifying chemistry to achieve outstanding results in all key hydraulic component wear tests as well as a proprietary blend of metal passivator, demulsifier, rust inhibitor, and anti-foam agents for extended fluid life. Standard viscosity index and low pour point allows year round use in most climates. This reduces the need for seasonal fluid changes for superior fluid economy.

KLONDIKE ENVIRO AW Hydraulic Fluid is non-toxic (OECD 203 aquatic toxicity test), is inherently biodegradable (OECD 301B), and passes the EPA Static Sheen Test. These features offer high performance fluid which will minimize environmental impact and have low environmental persistence. This greatly reduces the immediate and long-term environmental impact of the fluid in the event of an oil spill.

Meets industry requirements where environmentally sensitive fluids are necessary and recommended for use where fluids with low acute aquatic toxicity or low environmental persistence are preferred.

- **Smooth operation** – excellent fluid stability and viscosity retention for smooth power transfer.
- **Optimal oil service life** – high resistance to fluid oxidation and deposit formation for long expected service life.
- **Zinc-free chemistry** – non corrosive to silver and yellow metals found in some pumps.
- **Low environmental impact** – non-toxic chemistry with no heavy metals to contaminate water or soil.



# KLONDIKE ENVIRO AW Inherently Biodegradable Hydraulic Fluids

## SPECIFICATIONS AND APPROVALS

KLONDIKE ENVIRO AW Inherently Biodegradable Hydraulic Fluids meets the requirements of the following specifications and is recommended for use in (but not limited to):

- Denison HF-0, HF-1, HF-2
- Eaton E-FDGN-TB002-E
- General Motors LS-2
- Cincinnati Machine P-68 (ISO 32), P-69 (ISO 68), P-70 (ISO 46)
- Bosch Rexroth RDE 90245
- DIN 51524 Part I and II
- ISO 11158 Categories HH, HL, HM and HR

Other applicable uses may exist. Please contact KLONDIKE for more information.

## TYPICAL TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	ENVIRO AW 22	ENVIRO AW 32	ENVIRO AW 46	ENVIRO AW 68
Specific @ 15.6°C	ASTM D4052	0.85	0.86	0.86	0.87
API Gravity	ASTM D287	33.5	32.5	31.5	30.7
Viscosity @ 40°C, cSt	ASTM D445	22	32	46	68
Viscosity @ 100°C, cSt	ASTM D445	4.35	5.5	7.15	8.77
Viscosity Index	ASTM D2270	102	108	108	100
Pour Point, °C	ASTM D5950	-43	-40	-38	-35
Flash Point, COC, °C	ASTM D92	220	220	230	236
Oxidation Life	ASTM D943	8000	8000	8000	6000
Dielectric Breakdown Voltage, kV*	ASTM D877	>45	>45	>45	>45
Biodegradability, %	OECD 301B	>30	>30	>30	>30

All stated properties are typical of standard production and may vary. KLONDIKE reserves the right to change product specifications and/or performance properties at its discretion and without notice.

\*Dielectric strength value applies only at the point of manufacture of packaged goods. (Does not apply to bulk packaging). Any oil will quickly lose its dielectric strength when exposed to even minor contamination. KLONDIKE is not responsible for dielectric value after any packaged product is opened. Values reported have been verified by professional third party testing. However, industry standard test method for measuring kV values is variable and test results may differ.



# KLONDIKE ENVIRO AW Inherently Biodegradable Hydraulic Fluids

## HEALTH AND SAFETY

This product is not expected to have adverse health implications when used for its intended application. For detailed information on safe handling of this product, refer to its Material Safety Data Sheet (MSDS). To obtain an MSDS on this or any other KLONDIKE product, please visit [www.klondikelubricants.com](http://www.klondikelubricants.com) or call 1-877-293-4691. When disposing of used product, be responsible to the environment.

## PRODUCT NUMBERS

ENVIRO AW 22	Pail: 18.9 L / 5 GAL	KL-BL0180
	Drum: 208 L / 55 GAL	KL-BL0190
	Tote: 1040 L / 275 GAL	KL-BL0195
ENVIRO AW 32	Pail: 18.9 L / 5 GAL	KL-BL0280
	Drum: 208 L / 55 GAL	KL-BL0290
	Tote: 1040 L / 275 GAL	KL-BL0295
ENVIRO AW 46	Pail: 18.9 L / 5 GAL	KL-BL0380
	Drum: 208 L / 55 GAL	KL-BL0390
	Tote: 1040 L / 275 GAL	KL-BL0395
ENVIRO AW 68	Pail: 18.9 L / 5 GAL	KL-BL0480
	Drum: 208 L / 55 GAL	KL-BL0490
	Tote: 1040 L / 275 GAL	KL-BL0495

## BRAVING THE FORCE OF MOVEMENT

KLONDIKE stands for robust, reliable, high quality products tailored to suit the requirements of the on- and off-road heavy duty, automotive and industrial markets. Our solutions span from trend-setting retail lubricants through small-batch custom formulations to large bulk orders ready for immediate delivery.

The extensive KLONDIKE product range includes premium oils, lubricants, greases, chemicals and specialty fluids formulated with virgin base oils and protective inhibitors. Designed to handle the most extreme climates and operating conditions, the KLONDIKE products protect and extend the life of your equipment, optimize performance and improve productivity while meeting and exceeding industry standards and specifications.

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# KLONDIKE ENVIRO MV Inherently Biodegradable Hydraulic Fluids



## PRODUCT DESCRIPTION

KLONDIKE ENVIRO MV Inherently Biodegradable Hydraulic Fluids are premium, multi-viscosity formulations designed for high performance hydraulic systems. These advanced fluids provide outstanding operating and maintenance benefits for increased productivity and long service life.

## APPLICATIONS

KLONDIKE ENVIRO MV Inherently Biodegradable Hydraulic Fluids are designed as an environmentally safer alternative to conventional zinc based hydraulic fluid and are an excellent high pressure, high temperature power transfer fluid where vane, piston, and gear pumps are utilized. This fluid may also be used as a general purpose lubricant where straight mineral oils and conventional rust and oxidation inhibited oils are recommended in the appropriate viscosity grade. Such industrial applications may include (but are not limited to) machine tools, presses, die casting and injection molding machines among others.

Typical applications for KLONDIKE ENVIRO MV Inherently Biodegradable Hydraulic Fluids include (but are not limited to):

- Heavy duty mobile and stationary equipment in exploration, construction, agriculture, marine, logging and mining industries.
- Specialized hydraulic pump systems with silver bearings as there is no zinc to displace the silver.
- Multi-use industrial equipment lubricant for plain/anti-friction bearings, air-line lubricators and other such uses.



## FEATURES AND BENEFITS

KLONDIKE ENVIRO MV Inherently Biodegradable Hydraulic Fluids are formulated using ultra-pure paraffinic base oils and high performance ashless additive technology. This high viscosity index, shear stable fluid has outstanding resistance to viscosity shear loss in the presence of heavy mechanical stress, high temperature, and high pressure resulting in optimum viscosity retention across the life of the fluid.

Zinc Free (ashless) additive technology utilizes specialized antiwear and friction modifying chemistry to achieve outstanding results in all key hydraulic component wear tests as well as a proprietary blend of metal passivator, demulsifier, rust inhibitor, and anti-foam agents for extended fluid life. High viscosity index and low pour point encourages year round use even in extreme climates. This reduces the need for seasonal fluid changes for superior fluid economy.

KLONDIKE ENVIRO MV Hydraulic Fluid is non-toxic (OECD 203 aquatic toxicity test), is inherently biodegradable (OECD 301B), and passes the EPA Static Sheen Test. These features offer high performance fluid which will minimize environmental impact and have low environmental persistence. This greatly reduces the immediate and long-term environmental impact of the fluid in the event of an oil spill.

Meets industry requirements where environmentally sensitive fluids are necessary and recommended for use where fluids with low acute aquatic toxicity or low environmental persistence are preferred.

- **Smooth operation** – excellent fluid stability and viscosity retention for smooth power transfer.
- **Optimal oil service life** – high resistance to fluid oxidation and deposit formation for long expected service life.
- **Zinc-free chemistry** – non corrosive to silver and yellow metals found in some pumps.
- **Low environmental impact** – non-toxic chemistry with no heavy metals to contaminate water or soil.



# KLONDIKE ENVIRO MV Inherently Biodegradable Hydraulic Fluids

## SPECIFICATIONS AND APPROVALS

KLONDIKE ENVIRO MV Inherently Biodegradable Hydraulic Fluids meets the requirements of the following specifications and is recommended for use in (but not limited to):

- Denison HF-0, HF-1, HF-2
- Eaton E-FDGN-TB002-E, I-186-S, M-2950-S
- General Motors LS-2, LH-04-1, LH-06-1, LH-15-1
- Cincinnati Machine P-68 (ISO 32), P-70 (ISO 46)
- Bosch Rexroth RDE 90245, HV FIV718
- DIN 51524 Part 3 HVLP type
- ISO 11158 Categories HV
- Komatsu (HM 46 fluid equivalent)
- John Deere/Hitachi (SUPER EX 46HN fluid equivalent)

Other applicable uses may exist. Please contact KLONDIKE for more information.

## TYPICAL TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	ENVIRO MV 32	ENVIRO MV 46
Specific @ 15.6°C	ASTM D4052	0.86	0.86
API Gravity	ASTM D287	32.5	31.5
Viscosity @ 40°C, cSt	ASTM D445	32	46
Viscosity @ 100°C, cSt	ASTM D445	6.5	8.3
Viscosity Index	ASTM D2270	162	160
Pour Point, °C	ASTM D5950	-46	-42
Flash Point, COC, °C	ASTM D92	220	230
Oxidation Life	ASTM D943	8000	8000
Biodegradability, %	OECD 301B	>30	>30

All stated properties are typical of standard production and may vary. KLONDIKE reserves the right to change product specifications and/or performance properties at its discretion and without notice.



# KLONDIKE ENVIRO MV Inherently Biodegradable Hydraulic Fluids

## HEALTH AND SAFETY

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## PRODUCT NUMBERS

ENVIRO MV AW 32	Pail: 18.9 L / 5 GAL	KL-BL1080
	Drum: 208 L / 55 GAL	KL-BL1090
	Tote: 1040 L / 275 GAL	KL-BL1095
ENVIRO MV AW 46	Pail: 18.9 L / 5 GAL	KL-BL1180
	Drum: 208 L / 55 GAL	KL-BL1190
	Tote: 1040 L / 275 GAL	KL-BL1195

## BRAVING THE FORCE OF MOVEMENT

KLONDIKE stands for robust, reliable, high quality products tailored to suit the requirements of the on- and off-road heavy duty, automotive and industrial markets. Our solutions span from trend-setting retail lubricants through small-batch custom formulations to large bulk orders ready for immediate delivery.

The extensive KLONDIKE product range includes premium oils, lubricants, greases, chemicals and specialty fluids formulated with virgin base oils and protective inhibitors. Designed to handle the most extreme climates and operating conditions, the KLONDIKE products protect and extend the life of your equipment, optimize performance and improve productivity while meeting and exceeding industry standards and specifications.

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# KLONDIKE Biodegradable AW Hydraulic Fluids: ISO 32, 46



## PRODUCT DESCRIPTION

KLONDIKE Biodegradable Anti-Wear Hydraulic Fluids are readily biodegradable, non-toxic, ashless oils designed for high performance hydraulic systems in mobile and stationary equipment. These fluids provide excellent operating and maintenance benefits across a broad temperature range for increased productivity, performance, and hydraulic pump protection.

## APPLICATIONS

KLONDIKE Biodegradable Anti-Wear Hydraulic Fluids are recommended for vane, piston, or gear-type hydraulic pumps in heavy duty, industrial machinery and mobile equipment and are highly recommended for use in monitored or environmentally sensitive locations. These premium oils effectively replace conventional hydraulic oils in any application where possible oil leakage may lead to undesirable, negative environmental impact. Typical applications include mining, marine, exploration, drilling, forestry and woodland equipment applications as well as indoor and outdoor industrial mills, factories, and construction equipment. These vegetable-based non-toxic fluids may also be used as general purpose lubricants to replace straight grade mineral oils or conventional rust and oxidation inhibited oils where these fluids are recommended.

Check your owner’s manual for recommended fluid viscosity.



## FEATURES AND BENEFITS

KLONDIKE Biodegradable Anti-Wear Hydraulic Fluids are manufactured with the highest quality, ultra-pure biodegradable canola base oil and high performance ashless additives. These advanced, thermally stable oils are designed for use in both high and low pressure hydraulic systems for industrial and mobile applications. A unique combination of antiwear and friction modifying agents as well as metal passivators, demulsifiers, rust inhibitors, and defoaming agents ensure these specialized oils maximize hydraulic performance and provide trouble free service in high output hydraulic systems operating at high temperature and pressure. Naturally high viscosity index provides outstanding shear stability and viscosity control, resisting oxidation and chemical breakdown.

KLONDIKE Biodegradable Anti-Wear Hydraulic Fluids are designed to minimize environmental impact and have low environmental persistence. These fluids are totally biodegradable and exceed established criteria for “readily” biodegradable status (OECD 301-B >60% within 28 days).

Developed as a complete alternative to mineral based hydraulic fluids, KLONDIKE Biodegradable Anti-Wear Hydraulic Fluids may safely be mixed with conventional and synthetic hydraulic oils if necessary. However, mixing with conventional or synthetic oils will void biodegradable status.

Biodegradability established via CEC/Sturm test methods and meets OECD 203 requirements for aquatic toxicity.

KLONDIKE Biodegradable Anti-Wear Hydraulic Fluids deliver value through the following benefits:

- **High viscosity index** – minimal viscosity change across wide temperature range delivers consistent, reliable performance.
- **High oxidation stability** – resists heat induced oil thickening and deposit formation in high pressure, high temperature service applications
- **Antiwear protection** – premium ashless antiwear additives minimize metal to metal contact even in high pressure operation
- **Outstanding versatility** – used in both mobile and stationary hydraulic equipment – wherever conventional hydraulic fluids are used



# KLONDIKE Biodegradable AW Hydraulic Fluids

## SPECIFICATIONS AND APPROVALS

KLONDIKE Biodegradable Anti-Wear Hydraulic Fluids are recommended for use in equipment manufactured by Eaton Vickers, Denison, Komatsu, Sauer-Danfoss, Oilgear, Hydreco, Dynex and others.

KLONDIKE Biodegradable Anti-Wear Hydraulic Fluids are recommended for use where the following specifications are required:

- **ASTM D6158**
- **Bosch Rexroth**
- **Eaton-Vickers** 35VQ25A pump, M-2950-S (Mobile) and I-286-S (Stationary)
- **Parker Hannifin (Denison)** HFO, HF1, HF2, T6H20C
- **DIN 51524-2**
- **General Motors** LS2 Specification, LH for antiwear hydraulic fluids
- **ISO 6743/4, 11158 L-HM**
- **Komatsu**
- **MAG Cincinnati, Cincinnati Machine**
- **JCMAS HK-1**
- **AFNOR NFE 48-603HM**
- **Lee-Norse 100-1**
- **Jeffrey No. 87**
- **Ford M-6C32**
- **B.F. Goodrich 0152**
- **Racine, Variable Volume Vane Pumps**
- **USS 127**

## TYPICAL TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	KLONDIKE	
		ISO 32	ISO 46
Oxidation hours, min	ASTM D943	3000+	3000+
Viscosity @ 40°C (cSt)	ASTM D445	33.0	49.5
Viscosity @ 100°C (cSt)	ASTM D445	7.42	11.67
Viscosity Index	ASTM D2270	221	240
Flash Point °C	ASTM D92	>250	>250
Pour Point °C	ASTM D5950	-33	-24
Zinc, wt %	ASTM D4927	0.00	0.00
Gravity; °API	ASTM D4052	21.3	21.6
Specific Gravity @ 60°F	ASTM D4052	0.913	0.916
4-Ball wear data			
1hr, 167°F, 1200rpm, 40kg		0.30/0.30	0.30/0.30
1hr, 130°F, 1800rpm, 20kg		0.30/0.30	0.30/0.30
1hr, 167°F, 1200rpm, 40kg		0.30/0.30	0.30/0.30
Biodegradability CEC/Sturm		100%	100%
Ecotoxicity Data			
Fathead minnow		96hr. LC-50 = >10,000 ppm	
Daphnia magna		48hr. EC-50 = >10,000 ppm WAF	

All stated physical properties are typical of standard production and may vary.



# KLONDIKE Biodegradable AW Hydraulic Fluids

## HEALTH AND SAFETY

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## PRODUCT NUMBERS

BIO AW 32	Pail: 18.9 L / 5 GAL	KL-BL1880
	Drum: 208 L / 55 GAL	KL-BL1890
	Tote: 1040 L / 275 GAL	KL-BL1895
BIO AW 46	Pail: 18.9 L / 5 GAL	KL-BL1980
	Drum: 208 L / 55 GAL	KL-BL1990
	Tote: 1040 L / 275 GAL	KL-BL1995

## BRAVING THE FORCE OF MOVEMENT

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# KLONDIKE BIO Synthetic Blend Hydraulic Fluids



## PRODUCT DESCRIPTION

KLONDIKE BIO Synthetic Blend Hydraulic Fluids are readily biodegradable, non-toxic, high performance hydraulic oils that meet industry requirements for environmentally acceptable lubricants (EAL). These advanced fluids are designed to give maximum protection and performance in hydraulic equipment used in environmentally sensitive areas.

## APPLICATIONS

KLONDIKE BIO Synthetic Blend Hydraulic Fluids are designed for maximum performance and system protection in industrial and mobile hydraulic equipment. Typical industries where this advanced technology is ideal for use include construction, mining, dredging, marine, agriculture, exploration, oil and gas, and production plant operations.

KLONDIKE BIO Synthetic Blend Hydraulic Fluids are designed for use in hydraulic systems utilizing vane, piston, and gear-type pumps in mobile and stationary use.

For optimum performance, always follow the viscosity grade recommendation of the system manufacturer.



## FEATURES AND BENEFITS

KLONDIKE BIO Synthetic Blend Hydraulic Fluids are readily biodegradable, non-toxic, and non-bio accumulative. The proprietary combination of premium ester synthetic and highly stable vegetable base stocks, along with ashless, zinc free additive technology ensures that, in the event of a spill, the product will degrade in excess of 60% within 28 days; minimizing potential impact to the environment. This standard is outlined in OECD 301B for a product to qualify for readily biodegradable status.

KLONDIKE BIO Synthetic Blend Hydraulic Fluids are designed to give maximum anti wear and extreme pressure protection in hydraulic equipment used in both mobile and stationary hydraulic pumps in high-performance industrial applications. Technically advanced chemistry provides exceptional oxidation stability, water separability, foam suppression, and protection against wear, rust and corrosion. High VI formulations allow operation over a wide ambient and operating temperature range and ensure outstanding operating system efficiency.

KLONDIKE BIO Synthetic Blend Hydraulic Fluids are designed to exceed the performance expectations of conventional, antiwear hydraulic oils, while ensuring a very high level of environmental protection in case of leakage or accidental discharge into the natural environment.

KLONDIKE BIO Synthetic Blend Hydraulic Fluids provides value through the following benefits:

- **Environmentally acceptable** – fluid chemistry meets the requirements of the EPA Vessel General Permit (VGP) for biodegradation, toxicity, bioaccumulation.
- **Advanced performance** – Ashless formulation provides outstanding protection for hydraulic pumps and systems for high operating efficiency.
- **Long oil life** – advanced base oil is highly stable and resistant to oxidation at high temperatures.
- **High efficiency** – High viscosity index for advanced system performance across a wide temperature range.
- **Zinc-free** – Suited for applications involving yellow metals found in some hydraulic pumps.



# KLONDIKE BIO Synthetic Blend Hydraulic Fluids

## TYPICAL TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	BIO SYN BLEND AW46
ISO Grade		46
Viscosity cSt. @ 40°C	ASTM D445	47.0
Viscosity cSt. @ 100°C	ASTM D445	9.9
Viscosity Index	ASTM D2270	204
Pour Point	ASTM D97	-34
Biodegradability, 28 Days	OECD 301B	> 70%
Biodegradable status	OECD 301B	Readily

All stated physical properties are typical of standard production and may vary.

### HEALTH AND SAFETY

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### PRODUCT NUMBERS

BIO AW 46 SYNTHETIC BLEND	Pail: 18.9 L / 5 GAL	KL-BL2780
	Drum: 208 L / 55 GAL	KL-BL2790
	Tote: 1040 L / 275 GAL	KL-BL2795

### BRAVING THE FORCE OF MOVEMENT

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The extensive KLONDIKE product range includes premium oils, lubricants, greases, chemicals and specialty fluids formulated with virgin base oils and protective inhibitors. Designed to handle the most extreme climates and operating conditions, the KLONDIKE products protect and extend the life of your equipment, optimize performance and improve productivity while meeting and exceeding industry standards and specifications.

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