

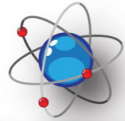


**SMARTOIL<sup>®</sup>**

**BIOBLEND<sup>™</sup>**

High Performance BioBased Lubricants





# SMARTOIL®



**Lubricantes**



**BIODEGRADABLES**

español

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# SMARTOIL

BIOBLEND OFRECE UNA LÍNEA COMPLETA DE LUBRICANTES DE GRADO ALIMENTARIO PARA TODAS SUS NECESIDADES DE EQUIPO. TODOS ESTOS LUBRICANTES ESTÁN CERTIFICADOS H1 POR NSF, EL ORGANISMO REGULADOR DE TODOS LOS LUBRICANTES DE GRADO ALIMENTARIO.



BIOBLEND PRESENTA LA TECNOLOGÍA H1 DE PRÓXIMA GENERACIÓN QUE NOS DIFERENCIA. NUESTRA LÍNEA DE PRODUCTOS DE GRADO ALIMENTARIO CUENTA CON VARIOS LUBRICANTES QUE TAMBIÉN SON BIODEGRADABLES, RENOVABLES Y FABRICADOS UTILIZANDO RECURSOS SOSTENIBLES.

¿CÓMO SERÁ LA INDUSTRIA DE LUBRICANTES DE GRADO ALIMENTARIO DENTRO DE 5, 10 O 20 AÑOS AHORA? LA TECNOLOGÍA LUBRICANTE DE PRÓXIMA GENERACIÓN DE BIOBLEND ESTÁ DISPONIBLE AHORA MISMO. NUESTROS LUBRICANTES DE BASE BIOLÓGICA OFRECEN MEJOR LUBRICACIÓN VS. LUBRICANTES H1 A BASE DE PETRÓLEO Y SON SOSTENIBLES.

LA GENTE ESTÁ HACIENDO EL CAMBIO A BIOBLEND TODOS LOS DÍAS, ¿A QUÉ ESTÁS ESPERANDO?

[www.smartoilers.com](http://www.smartoilers.com)

(502) 5966 1064



## PRODUCT NAME

**BioGrease ALC XT 2 – Biodegradable Aluminum Complex Extra-Tacky Grease, NLGI 2**

## MANUFACTURER

BioBlend Renewable Resources, LLC.

## DESCRIPTION

BioGrease ALC XT 2 is a biodegradable, minimally toxic, aluminum complex grease formulated to provide high film strength, withstand high operating temperatures, and maintain excellent stability. BioGrease ALC XT 2 features a high viscosity base oil for high load carrying capabilities. BioGrease ALC XT 2 also has excellent anti-wear, enhanced water washout properties, and high temperature stability. It is designed for heavy-duty use in a variety of industrial, mobile, and marine applications.

## FEATURES AND BENEFITS

- Extra tacky formulation
- Excellent anti-wear properties
- Enhanced water washout properties
- High viscosity for high load carrying capabilities
- Ideal for protection from salt spray
- Prevents rust and corrosion

## PACKAGING

- 35 Lb Pails
- 120 Lb Kegs
- 400 Lb Drums
- Totes

## SUITABLE USES

- This product contains proprietary tackifier additives that make it ideal for dredging, marine, construction - pins, bushings, spud rails and sheave applications
- Any industry (dredging, marine, hydroelectric powered dams, construction, refuse, mining, agriculture, plant operations, etc.) utilizing equipment with a need for an aluminum complex tacky grease, especially in systems where a release into the environment is possible or where a leak or spill could reach a waste stream

## COMPATIBILITY

- **Compatibility for Intended Equipment** – Usage in equipment that needs a general purpose / EP grease with a higher base oil viscosity (220 cSt)

## STORAGE AND SHELF LIFE

**Storage** – Keep in a cool, dry and well-ventilated place. Store in a properly labelled, original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. To help maintain product quality, do not store in heat or direct sunlight.

**Shelf Life** - Product shelf life is 24 months from date of packaging. In some cases product can last longer, please contact your BioBlend representative for proper testing and confirmation instructions.

## CAUTIONS

Ensure adequate ventilation. Do not breathe vapor/dust. Use personal protective equipment and avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. See the Safety Data Sheet (SDS) for emergency, proper handling and disposal information.

## APPLICATION

- Follow recommendations provided in your equipment owner's manual
- Follow your organization's manuals and/or best practices for preparation, cleaning, conversion, application and ongoing maintenance practices
- If you have further questions, please contact BioBlend Tech Services by filling out the contact us form on [bioblend.com](http://bioblend.com)

## AVAILABILITY

Worldwide

## TECHNICAL SERVICES

For additional information including the Safety Data Sheet (SDS), Frequently Asked Questions, and Glossary please visit [bioblend.com](http://bioblend.com).

## APPROVALS AND CERTIFICATIONS

Classified as Environmentally Acceptable Lubricants (EAL's) as per the EPA's guidance document that defines standards for Environmentally Acceptable Lubricants (EPA 800-R-11-002) and as required by EPA's 2013 U.S. Vessel General Permit (VGP)

**TYPICAL PROPERTIES**

Property	Test Method	ALC XT 2
Product Code		BGALCXT2
NLGI Grade		2
Base Oil Type		ISO 220
Appearance		Golden-Brown
Cone Penetration, Unworked		265 - 295
Dropping Point, °C		>240
Base Oil Viscosity at 40°C, cSt		220
Base Oil Viscosity at 100°C, cSt		36
Base Oil Viscosity Index		214
Water Washout % @ 79°C	ASTM D1264	3.35
Oil Separation		<10%
Base Oil Flash Point, °C (°F)		326 (619)
Base Oil Biodegradability	OECD 301	PASS
Base Oil Aquatic Toxicity	OECD 202	Non-Toxic
Base Oil Plant Toxicity	OECD 208	Non-Toxic

The values quoted above are typical of normal production. They do not constitute a specification.

BioBlend makes no representations, guarantees or warranties, expressed or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose, or as to the correctness or sufficiency of data herein presented. All risk and liability regarding use, conditions of use and handling of this product are assumed by the buyer and any user. No agent, representative, or employee of this company is authorized to vary any of the terms of this notice. To continue to provide superior quality, BioBlend reserves the right to change the composition of its products without notice.



## PRODUCT NAME

**BioFlo AW - Anti-Wear Hydraulic Fluid**

## MANUFACTURER

BioBlend Renewable Resources, LLC.

## DESCRIPTION

BioFlo AW Hydraulic Fluids are readily biodegradable, zinc-free, anti-wear hydraulic oils formulated from renewable base stocks to meet the performance requirements of mobile and industrial hydraulic systems. High lubricity base oils are paired with environmentally responsible additive technologies to maximize performance and minimize ecological impact. These lubricants offer excellent thermal and oxidative stability, assuring superior service life with minimal viscosity change over a broad range of operating temperatures. BioFlo AW fluids are suitable for use in all conventional hydraulic systems, especially environmentally sensitive applications.

## FEATURES AND BENEFITS

- Zinc Free – Reduced risk of corrosion of certain metals. Safer for use around bodies of water
- Readily Biodegradable
- High viscosity index (VI) - Excellent thermal and oxidative stability
- Classified as Environmentally Acceptable Lubricant's (EAL's) as per EPA's 2013 U.S. Vessel General Permit (VGP) guidelines
- USDA BioPreferred – Contains 89% or greater biobased materials
- Excellent solvency – Reduces deposits and varnish
- Sheen free available

## PACKAGING

- 5 Gallon Pails
- 55 Gallon Drums
- 275 Gallon Totes

## SUITABLE USES

- All conventional hydraulic systems, especially in environmentally sensitive areas

## COMPATIBILITY

### Equipment Compatibility

- Any mobile or stationary equipment calling for anti-wear hydraulic oil

## Lubricant Compatibility

- Compatible with most other types of lubricants (for specific applications and lubricants please contact your BioBlend representative)

## Seal & Paint Compatibility

- Compatible with most seals except seals with less than 30% Buna
- No known paint compatibility issues

## STORAGE AND SHELF LIFE

**Storage** – Keep in a cool, dry and well-ventilated place. Store in a properly labelled, original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. To help maintain product quality, do not store in heat or direct sunlight.

**Shelf Life** - Product shelf life is 24 months from date of packaging. In some cases product can last longer, please contact your BioBlend representative for proper testing and confirmation instructions.

## CAUTIONS

Ensure adequate ventilation. Do not breathe vapor/dust. Use personal protective equipment and avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. See the Safety Data Sheet (SDS) for emergency, proper handling and disposal information. Intentional misuse by concentrating and inhaling the product can be harmful or fatal.

## APPLICATION

- Follow recommendations provided in your equipment's owner's manual
- Follow your organization's manuals and/or best practices for preparation, cleaning, conversion, application and ongoing maintenance practices
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## AVAILABILITY

Worldwide.

## TECHNICAL SERVICES

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### APPROVALS AND CERTIFICATIONS

- Classified as Environmentally Acceptable Lubricants (EAL's) as per the EPA's guidance document that defines standards for Environmentally Acceptable Lubricants (EPA

800-R-11-002) and as required by EPA's 2013 U.S. Vessel General Permit (VGP)

- USDA BioPreferred Program – 89% or greater biobased material

### TYPICAL PROPERTIES

PROPERTY	ASTM TEST METHOD	AW 32	AW 46	AW 68
Product Code		BF2100032	BF2100046	BF2100068
ISO Grade		32	46	68
Specific Gravity	D-1298	.913	.913	.913
Viscosity D445 @40°C, cSt	D-445	32	46	68
Viscosity D445 @100°C, cSt	D-445	7	10	14
Viscosity Index	D-2270	>188	>200	>200
Flash Point, °F (°C)	D-92	>325 (163)	>500 (260)	>500 (260)
Pour Point, °F (°C)	D-97	-33 (-36)	-22 (-30)	-22 (-30)
FZG Load Stage, DIN 51354		11	11	11
Copper Corrosion	D-4048	1A	1A	1A
Rust Test, A&B	D-665	Pass	Pass	Pass
4 Ball Wear	D-4172	<0.50	<0.50	<0.50
Dielectric Breakdown Voltage, kV	D-877	>45	>45	>45
Biodegradability % (meaning>60%)		Pass	Pass	Pass
OECD 301B, %		>76	>78	>71
Minimally Toxic		Pass	Pass	Pass
OECD 201 - Algae (EC 50), 72 hr, mg/L		>20,000 mg/L	>18,000 mg/L	>38,000 mg/L
OECD 202 - Daphnia (EC 50), 48 hr, mg/L		>5,500 mg/L	>3,700 mg/L	>13,000 mg/L
OECD 203 - Fish (LC 50), 96 hr, mg/L		>34,000 mg/L	>50,000 mg/L	>40,000 mg/L
Not Bioaccumulative* (*Calculated value as per EPA standard)		Pass	Pass	Pass
Bio-based Content, ASTM D6866, %		>86	>99	>96

The values quoted above are typical of normal production. They do not constitute a specification.

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BioFlo AW 32

BioFlo AW 46

BioFlo AW 68



## PRODUCT NAME

**BioGear S – Biodegradable Synthetic Gear Oil**

## MANUFACTURER

BioBlend Renewable Resources, LLC.

## DESCRIPTION

BioGear S is a biodegradable, industrial, extreme pressure gear oil formulated from synthetic ester base stocks. The combination of these high-quality base oils and a robust additive package allows for maximum equipment protection for extended drain intervals, while simultaneously providing protection for the environment. The additional lubricity of the fluid allows for efficient operation in demanding conditions. Available in ISO grades 150, 220, 320 and 460.

## FEATURES AND BENEFITS

- Provides superior performance and protection in wide temperature ranges and extended drain intervals
- Excellent reduction of friction (lubricity) for efficiency in demanding conditions
- USDA BioPreferred Program – Meets the biobased content standards for use in federal projects
- Meets AGMA 9005-E02 Industrial Gear Specification

## PACKAGING

- 5 Gallon Pails
- 55 Gallon Drums
- 275 Gallon Totes

## SUITABLE USES

To be used in industrial gear applications across a wide range of industries especially where a full synthetic product is recommended, equipment runs in a wide operating temperature range or there is a desire to extend drain intervals. Use in equipment where a release into the environment is possible, where the authorities have mandated the usage of an EAL, or where a leak or spill could reach a waste stream.

## STORAGE AND SHELF LIFE

**Storage** – Keep in a cool, dry and well-ventilated place. Store in a properly labelled, original container.

Containers which are opened must be carefully resealed and kept upright to prevent leakage. To help maintain product quality, do not store in heat or direct sunlight.

**Shelf Life** - Product shelf life is 24 months from date of packaging. In some cases product can last longer, please contact your BioBlend representative for proper testing and confirmation instructions.

## CAUTIONS

Ensure adequate ventilation. Do not breathe vapor/dust. Use personal protective equipment and avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. See the Safety Data Sheet (SDS) for emergency, proper handling and disposal information.

## APPLICATION

- Follow recommendations provided in your equipment's owner's manual
- Follow your organization's manuals and/or best practices for preparation, cleaning, conversion, application and ongoing maintenance practices
- If you have further questions, please contact BioBlend Tech Services by filling out the contact us form on [bioblend.com](http://bioblend.com)

## AVAILABILITY

Worldwide.

## TECHNICAL SERVICES

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## APPROVALS AND CERTIFICATIONS

- Classified as Environmentally Acceptable Lubricants (EAL's) as per the EPA's guidance document that defines standards for Environmentally Acceptable Lubricants (EPA 800-R-11-002) and as required by EPA's 2013 U.S. Vessel General Permit (VGP)
- USDA BioPreferred Program – 81% Biobased content



## TYPICAL PROPERTIES

Property	ASTM Test Method	S 150	S 220	S 320	S 460
Product Code			BG4900220	BG4900320	BG4900460
ISO Grade		150	220	320	460
Specific Gravity	ASTM D1298	.87	.87	.87	.87
Viscosity @40°C, cSt	ASTM D445	150	220	320	460
Viscosity @100°C, cSt	ASTM D445	19	27	36	46
Viscosity Index (VI)	ASTM D2270		>160	>160	>160
Pour Point °F (°C)	ASTM D97		-40 (-40)	-40 (-40)	-40 (-40)
Flash Point °F (°C)	ASTM D92		>500 (260)	>515 (268)	>527 (275)
Gear Lubrication, FZG Load Stage	DIN 51354		13+	13+	13+
Water Separation, min	ASTM D1401		25	25	25
Copper Corrosion	ASTM D4048		1A	1A	1A
Rust Test, A & B	ASTM D665		Pass	Pass	Pass
Readily Biodegradable (meaning>60%)			Pass	Pass	Pass
Biodegradability, %	OECD 301B		>60	>60	>60
Minimally Toxic			Pass	Pass	Pass
Algae (EC 50), 72 hr, mg/L	OECD 201		>18,000	>18,000	>18,000
Daphnia (EC 50), 48 hr, mg/L	OECD 202		>11,000	>11,000	>11,000
Fish (LC 50), 96 hr, mg/L	OECD 203		>23,000	>23,000	>23,000
Not Bioaccumulative (Calculated value as per EPA standard)			Pass	Pass	Pass
Bio-based Content, %	ASTM D6866		>78	>78	>78

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**Overview** ▶ BioFlo Synthetic UTF is formulated from synthetic readily biodegradable, high lubricity base oils and proprietary anti-wear and anti-corrosion additives. It is a multifunctional fluid for high-pressure tractor hydraulics, transmissions and final drives that share a common reservoir. BioFlo Synthetic UTF protects against varnish and sludge in harsh operating environments and is optimized for year round use, eliminating the need to change oils based on summer and winter conditions.



BioFlow Synthetic UTF fluids are formulated featuring our proprietary eSyn™ technology.

## Typical Properties ▼

Property	ASTM Test Method	Synthetic UTF
Product Code		BF2104046
Specific Gravity	ASTM D1298	0.91
Viscosity, @40°C, cSt	ASTM D445	48.5
Viscosity, @100°C, cSt	ASTM D445	9.5
Viscosity Index (VI),	ASTM D2270	>200
Pour Point, °F (°C)	ASTM D97	-40 (-40)
Flash Point, °F (°C)	ASTM D92	>430 (225)
Copper Corrosion,	ASTM D4048	1A
Rust Test A & B	ASTM D665	PASS
Biodegradability, %	OECD 301B	PASS >70
Minimally Toxic	OECD 201, 202, 203	PASS
Non Bioaccumulative		PASS
BioBased Content, %	ASTM D6866	>63

## Key Attributes / Approvals ▶



Any industry (construction, refuse, mining, dredging, marine, agriculture, forestry, etc.) utilizing mobile or stationary equipment where a UTTO is required, especially systems where a release into the environment is possible or where a leak or spill could reach a waste stream.

- Classified as Environmentally Acceptable Lubricants (EAL's) as per the EPA's guidance document that defines standards for Environmentally Acceptable Lubricants (EPA 800-R-11-002) and as required by EPA's 2013 U.S. Vessel General Permit (VGP)
- Meets John Deere J20C and J20D specifications
- Meets Allison C-4 specification
- Meets Caterpillar TO-2 specification
- Meets AGMA GL-4

See the Safety Data Sheet (SDS) for emergency, proper handling and disposal information. Rev. DL R2 10 25 2021

**Overview** ▶ BioFlo FG 32/46 is a readily biodegradable, high performance food grade lubricant that meets the requirements for high-pressure anti-wear hydraulic fluids for the food processing industry. BioFlo FG32/46 is NSF registered as meeting the guidelines of an H1 product for incidental food contact. Excellent lubricity and temperature stability provide efficient power transfer and superior service life with minimal viscosity change over a broad range of applications.



BioFlo FG 32/46 is formulated featuring our proprietary eSyn™ technology and is available in ISO grade 40.

**Typical Properties** ▼

Property	ASTM Test Method	FG 32/46
Product Code		FBF2903246
ISO Grade		40
Specific Gravity	ASTM D1298	.091
Viscosity @40°C, cSt	ASTM D445	40
Viscosity @100°C, cSt	ASTM D445	10
Viscosity Index (VI)	ASTM D2270	>200
Pour Point °F (°C)	ASTM D97	8 (-13)
Flash Point °F (°C)	ASTM D92	>500(260)
Copper Corrosion	ASTM D4048	1A
Rust Test, A & B	ASTM D665	Pass
Readily Biodegradable (meaning>60%)		Pass
Biodegradability, %	OECD 301B	>90
Bio-based Content, %	ASTM D6866	>95

**Key Attributes / Approvals** ▶



NSF H1



- NSF H 1 Food Grade Lubricant - #141209
- Superior anti-wear protection
- Excellent oxidation and temperature stability
- Classified as Environmentally Acceptable Lubricants (EAL's) as per the EPA's guidance document that defines standards for Environmentally Acceptable Lubricants (EPA 800-R-11-002) and as required by EPA's 2013 U.S. Vessel General Permit (VGP)

Use in hydraulic systems where a release into the environment is possible, where mandated by law, or where a leak or spill could reach a waste stream. Any industry, especially those with food processing equipment or food packaging equipment, either indoor or outdoor, utilizing mobile or stationary hydraulically powered equipment.

See the Safety Data Sheet (SDS) for emergency, proper handling and disposal information. Rev. BFFG-06082020



eSyn is environmental Synergy

