

PRODUCT NAME

BioFlo AW - Anti-Wear Hydraulic Fluid

MANUFACTURER

BioBlend Renewable Resources, LLC.
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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
- If you have further questions, please contact BioBlend Tech Services by filling out the contact us form on bioblend.com

AVAILABILITY

Worldwide.

TECHNICAL SERVICES

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

BioFlo AW

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%) OECD 301B, %		Pass >76	Pass >78	Pass >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