

## PRODUCT NAME

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

## MANUFACTURER

BioBlend Renewable Resources, LLC.  
1500 Jarvis Ave.  
Elk Grove Village IL, 60007  
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## DESCRIPTION

BioFlo AW Hydraulic Fluids are semi-synthetic, 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](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)

- 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%)<br>OECD 301B, %             |                  | Pass<br>>76  | Pass<br>>78  | Pass<br>>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