

Overview ▶ BioFlo EPIC TO-4 Fluid is a full synthetic transmission fluid formulated for use in the most severe environments. EPIC TO-4 is designed with the highest quality additives for performance in the synthetic ester bases oils. The product is also an Environmentally Acceptable Lubricant that is Biodegradable and has ultra-low toxicity.



EPIC TO-4 is suitable for use in applications requiring TO-4 fluids as well as the obsolete TO-2 specification. Additional OEM applications are listed below.

BioFlo EPIC TO-4 is formulated featuring our proprietary **eSyn™** technology and is available in SAE 10W, 30 and 50.

Typical Properties ▼

Property	Test Method	EPIC TO-4			Requirement		
		SAE 10W	SAE 30	SAE 50	SAE 10W	SAE 30	SAE 50
Product Code		BF2112010	BF2112030	BF2112050			
Kinematic Viscosity @ 100 C, cSt	ASTM D445	6.6	10	18.1	4.1 Min	9.3-12.5	16.3-21.9
Kinematic Viscosity @ 40 C, cSt	ASTM D445	39.3	76.5	192.6			
Mini Rotary Viscometer, cP (30,000 max)	ASTM D4684	4200	4200	6000		30,000 Max	
Testing Temperature, C		-25	-15	-5	-25	-15	-5
Brookfield Viscosity, cP (15,000 max)	ASTM D2983	17,900	16,900	25,700		150,000 Max	
Testing Temperature, C		-35	-25	-15	-35	-25	-15
High Temperature/High Shear Viscosity @ 150 C, cP	ASTM D4683	2.2	3.2	5.1	2.1	2.9	4.5
Limits, minimum		2.1	2.9	4.5	2.1	2.9	4.5
Fluid Compatibility	Caterpillar	Pass	Pass	Pass	No sediment or precipitation		
Flash Point, C min	ASTM D92	Pass	Pass	Pass	160 C	160 C	160 C
Fire Point, C min	ASTM D92	Pass	Pass	Pass	175 C	175 C	175 C
Foaming, Sequences I, II, III 25/0, 50/0, 25/0	ASTM D-892	Pass	Pass	Pass			
Rust Test	ASTM D665A	No Rust	No Rust	No Rust	No Rust	No Rust	No Rust
	ASTM D665B	No Rust	No Rust	No Rust	No Rust	No Rust	No Rust
Copper Corrosion	ASTM D130	1a	1a	1a	1a	1a	1a
Gear Wear	ASTM D4172B	0.22	0.22	0.22	< 0.5 mm	< 0.5 mm	< 0.5 mm

Biodegradability , PASS (meaning>60%) , %	OECD 301B	Pass >60	Pass >60	Pass >60
--	--------------	-------------	-------------	-------------

Key Attributes / Approvals ▶



- 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)
- Suitable for use where the following specifications are required"
 - Caterpillar TO-4
 - Caterpillar TO-4M
 - Caterpillar TO-2
 - Komatsu KES 07.868.1
 - Sperry Vickers Eaton M29505 and I-290-S
 - Allison C-4

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

Rev. BFEPIC TO-4-06052020