



## Coastal<sup>®</sup> Premium ZF AW Hydraulic Oil

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**Coastal ZF (Zinc Free) AW Hydraulic Oils** are premium-quality anti-wear hydraulic oils which are formulated using non zinc containing additive technology. These products provide the product performance of premium anti-wear hydraulic oil, without the heavy metals normally found in such products. This reduces the concerns of many regulatory agencies regarding the presence of “heavy metals” in plant effluent. It is non-toxic to fish and aquatic species as determined by OECD Test Method 203. It is classified as inherently biodegradable by the OECD Test Method 301B.

**Coastal ZF (Zinc Free) AW Hydraulic Oils** are recommended for use in all applications calling for anti-wear hydraulic oil.

**Coastal ZF (Zinc Free) AW Hydraulic Oils** meet or exceed the requirements of Cincinnati-Milacron, Hagglunds-Denison HF-0, HF-1, and HF-2, Vickers M-2950-S and I-286-S.

### Benefits

- Inherently Biodegradable
- Nontoxic to aquatic organisms
- Excellent wear protection
- Rapid release of any entrained air
- Oxidation and thermal stability for long life
- Excellent rust and corrosion protection
- Easy filterability



**Warren Oil Company, LLC**

Dunn, NC 28334: Benton, AL 36758: San Antonio, TX 78210:  
Marion, IL 62959: Johnstown, PA 15909: West Memphis, AR 72301



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### Typical Characteristics

#### Coastal Premium ZF AW Hydraulic Oils

ISO Viscosity Grade	<b>32</b>	<b>46</b>	<b>68</b>
SAE Viscosity Grade	10W	20W	20W
Specific Gravity	.871	.876	.884
Flash Point °F ( °C )	405 (208)	405 (208)	410 (210)
Pour Point °F.	-25	-20	-15
Appearance	Light Pale	Light Pale	Light Pale
Viscosity			
@ 40 °C, cSt	32	46	68
@100 °C, cSt	5.4	6.9	8.9
@ 100 °F, SUS	165	227	352
@ 210 °F, SUS	44	48	56
Viscosity Index	100	100	100
Gravity, °API	31.5	30.0	28.5
Oxidation, ASTM D943, hours	5000+	5000+	5000+
Aquatic Toxicity, OECD 203	Nontoxic	Nontoxic	Nontoxic
Biodegradability in 28 days, OECD 301-B, %	72	72	72
Bulk Product Code Number	45300	45400	45500



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