

# PURUS<sup>®</sup>

## CUT THE COST, NOT THE QUALITY.

“YOU CAN TAKE IT TO THE LAB.”

## PURUS<sup>®</sup> ZINC FREE AW HYDRAULIC OILS



### DESCRIPTION

**PURUS<sup>®</sup> 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 which reduces concerns of many regulatory agencies. PURUS<sup>®</sup> Zinc Free AW Hydraulic Oils are non-toxic to fish and aquatic species as determined by OECD Test Method 203 and is classified as inherently biodegradable by OECD Test Method 301B.

**PURUS<sup>®</sup> Zinc Free AW Hydraulic Oils** are recommended for use in all applications calling for anti-wear hydraulic oil and meet or exceed the current and former specifications: Fives Cincinnati P-68, P-69, P-70 (obsolete), Parker (formerly Denison) HF-0, HF-1, and HF-2, Eaton E-FDGN-TB002-E, Bosch Rexroth RDE 90220 (obsolete) and 90235, DIN 51524-II (HM), ASTM D6158 (HM), ISO 11158 (HM), AIST 126, 127, SAEMS 1004 (HM), GM LS2, SEB 181222, and JCMAS P041 HK Hydraulic specification. Inherently Biodegradable and non-toxic to aquatic organisms. Suitable for use in applications which cite former or obsolete specifications such as Fives Cincinnati P-68, P-69, P-70 and Bosch Rexroth RDE 90220.

**PURUS<sup>®</sup> Zinc Free AW Hydraulic Oils** are purpose built to meet these industry drivers and challenges:

- Environmental Compliance & Sustainability Requirements
- Hydraulic System Reliability & Wear Protection
- Longer Fluid Life & Reduced Maintenance Costs

### PERFORMANCE BENEFITS

INDUSTRY DRIVERS	PURUS SUPPORTING TECHNOLOGY	PURUS BENEFITS & ADVANTAGES
Environmental Compliance & Sustainability Requirements	<ul style="list-style-type: none"><li>• Zinc-free additive technology</li><li>• Non-toxic formulation (OECD 203)</li><li>• Inherently biodegradable chemistry (OECD 301B)</li></ul>	<ul style="list-style-type: none"><li>• Reduces environmental concerns associated with heavy metals</li><li>• Safer for environmentally sensitive applications and aquatic environments</li><li>• Supports sustainability initiatives and regulatory compliance efforts</li><li>• Helps reduce environmental liability and disposal concerns</li></ul>
Hydraulic System Reliability & Wear Protection	<ul style="list-style-type: none"><li>• Premium anti-wear (AW) additive system</li><li>• Rapid air release properties</li><li>• Excellent rust and corrosion protection</li></ul>	<ul style="list-style-type: none"><li>• Reduces wear in hydraulic pumps and components</li><li>• Protects systems operating under high pressure and severe duty</li><li>• Minimizes foaming and cavitation issues</li><li>• Improves equipment reliability and service life</li></ul>
Longer Fluid Life & Reduced Maintenance Costs	<ul style="list-style-type: none"><li>• Outstanding oxidation and thermal stability</li><li>• Easy filterability</li><li>• Highly refined base oils</li></ul>	<ul style="list-style-type: none"><li>• Extends hydraulic fluid life and drain intervals</li><li>• Maintains cleaner hydraulic systems and filters</li><li>• Reduces downtime and maintenance frequency</li><li>• Improves operational efficiency in industrial and mobile equipment</li></ul>

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## TYPICAL PROPERTIES\*

ISO Viscosity Grade	<b>32</b>	<b>46</b>	<b>68</b>
SAE Viscosity Grade	<b>10W</b>	<b>20W</b>	<b>20W</b>
Specific Gravity	<b>0.864</b>	<b>0.869</b>	<b>0.873</b>
Flash Point °F (°C)	<b>423 (217)</b>	<b>444 (229)</b>	<b>473 (245)</b>
Pour Point Deg °C.	<b>-40</b>	<b>-37</b>	<b>-35</b>
Appearance	<b>Light Pale</b>	<b>Light Pale</b>	<b>Light Pale</b>
Viscosity @ 40 Deg. °C, cSt (@ 100 °F, SUS)	<b>34.4 (150.5)</b>	<b>49.35 (214)</b>	<b>71.72 (315)</b>
Viscosity @100 Deg. °C, cSt (@ 210 °F, SUS)	<b>5.8 (151.5)</b>	<b>7.2 (216)</b>	<b>9.2 (318)</b>
Viscosity Index	<b>109</b>	<b>106</b>	<b>103</b>
Gravity, API	<b>32.43</b>	<b>31.39</b>	<b>30.58</b>
Oxidation, ASTM D943, hours	<b>8500</b>	<b>6000</b>	<b>10000</b>
Aquatic Toxicity, OECD 203	<b>Nontoxic</b>	<b>Nontoxic</b>	<b>Nontoxic</b>
Biodegradability in 28 days, OECD 301-B, %	<b>34%</b>	<b>34%</b>	<b>34%</b>



\*Due to continual product research and development, the information contained herein is based on products purchased in the U.S. and subject to change without notification. Typical properties may vary slightly.

This data sheet and the information it contains is believed to be accurate as of the date of printing. However, no warranty or representation, express or implied, is made as to its accuracy or completeness. Data provided is based on standard tests under laboratory conditions and is given as a guide only. Users are advised to ensure that they refer to the latest version of this data sheet. It is the responsibility of the user to evaluate and use products safely, to assess suitability for the intended application and to comply with all applicable laws and regulations. Safety Data Sheets are available for all of our products and should be consulted for appropriate information regarding storage, safe handling, and disposal of the product. No responsibility is taken by either AIOD or its affiliates for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from hazards inherent in the nature of the material. All products, services and information supplied are provided under our standard conditions of sale. You should consult your local AIOD Distributor if you require any further information.

PRODUCT	5 GAL PAIL	DRUM	TOTE	BULK
ZF AW 32	PHD27103	PHD17103	PHD57103	17103
ZF AW 46	PHD27104	PHD17104	PHD57104	17104
ZF AW 68	PHD27105	PHD17105	PHD57105	17105