

# Product Data Sheet

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## VISCOSITY TUTELA® Premium Hydraulic Fluid 46HV Zinc Free



Engineered with Fluid Technology Solutions™, our expertly designed formulation provides high performance and an extended protection for your off-road equipment.

### Description and Applications



**VISCOSITY TUTELA Hydraulic Fluid 46HV Zinc Free** is an ashless premium performance anti-wear hydraulic specially developed for a wide range of mobile and industrial hydraulic equipment operating under heavy duty conditions and the presence of water that may cause filter blockage.

Formulated with high quality selected base oils enhanced with high shear stable VI improvers with advanced anti-wear (zinc-free), antioxidant, anti-rust and anti-foam additives.

### Benefits

**VISCOSITY TUTELA Hydraulic Fluid 46HV Zinc Free** enhances your vehicle availability while significantly reducing your operating costs through:

- Zinc Free based formula reducing risks of ash formation maximizing filter efficiency.
- Provides excellent anti-wear protection.
- Excellent thermal and oxidation stability.

\*The components of this product do not contain zinc. Traces of zinc may be found as a result of the manufacturing process.

### Approvals, Specifications and Recommendations

**VISCOSITY TUTELA Hydraulic Fluid 46HV Zinc Free** meets the requirements of:

- DIN 51524 Part II HLP and III HVLP (2006)
- Eaton Brochure 03-401-2010
- Fives Cincinnati P-68, P-69 and P-70
- ISO 11158 HV (FDIS 2008)
- Parker Denison HF-0, HF-1, HF-2

Note: Always consult your owner's manual to check recommended viscosity grade and specifications for your specific vehicle.

## Typical Physical Data

Parameters	Typical Value	Test Method (ASTM)
<b>Kinematic Viscosity @40C, cSt:</b>	46.0	D445
<b>Kinematic Viscosity @100C, cSt</b>	8.5	D445
<b>Viscosity Index</b>	163	D2270
<b>Brookfield Viscosity @-20C, cP</b>	2400	D2983
<b>Brookfield Viscosity @-40C, cP</b>	42000	D2983
<b>Specific Gravity, 15.6C</b>	0.862	D4052
<b>Pour Point, C</b>	-50	D97
<b>Flash Point, C</b>	225	D92
<b>Rust Prevention,</b>	Pass	D665A, D665B
<b>Water Separability, 40/40/0, minutes</b>	20	D1401
<b>Copper Corrosion, 3 Hours @100C</b>	1	D130

All technical data is provided for reference only. These characteristics are typical of current production. Whilst future production will conform to PLI's specification, variations in these characteristics may occur

### Health, Safety and Environment

This product is unlikely to present any significant health and safety hazards when used in the recommended application. Avoid contact with skin. Wash immediately with soap and water after skin contact. Do not discharge into drains, soil or water. Eye Irritant. If in eyes, rinse with water for 15 minutes. Contains mineral oil and Phosphordithioic acid, mixed 9,0-bis (2-ethylhexyl and iso-Pr) esters, zinc salts. If swallowed, Call a Poison Control Center or doctor immediately. Do not induce vomiting. Contact us at: [www.viscosityoil.com](http://www.viscosityoil.com) Contains mineral oil and additives. Avoid contact with eyes, skin, and clothing. Do not swallow. Wash hands after use. KEEP OUT OF REACH OF CHILDREN

### Important Note

Safety Data Sheets are available for all our products and should only be consulted for appropriate information regarding storage, safe handling, and disposal of the product. No responsibility shall be taken by either PLISB or its subsidiaries and related holding corporation for any loss or injury or any direct, indirect, special, exemplary, consequential damages or any damages whatsoever, whether in action of contract, negligence or other tortious action, in connection or resulting from abnormal use of the materials and/or information, from any failure to adhere to recommendations, or from hazards inherent in the nature of the materials and/or information. All products, services and information supplied are under our standard conditions of sale. Please consult with any of our local representative in the event you require any further information.