# MaxHydro HDZ 100

Premium Quality HVI Anti-Wear Hydraulic Oil

## Description

MAXFLUID MaxHydro HDZ 100 is a high-performance, zinc-free anti-wear hydraulic oil with a high viscosity index (HVI), developed by MAXFLUID for modern high-pressure industrial and marine hydraulic systems. Built on carefully selected base oils and an advanced additive system, it delivers well-balanced performance across a wide range of applications.

Its outstanding oxidation and thermal stability supports long oil life and minimal deposit formation in severe systems using high-pressure, high-output pumps, while its ultra keep-clean performance protects tight-tolerance servo and proportional valves. The shear-stable, high viscosity index allows a wide operating temperature range, and the zinc-free anti-wear system protects gear, vane, and piston pumps. MaxHydro HDZ 100 also achieves a pass in acute aquatic toxicity testing (LC-50, OECD 203).

## Performance Features & Benefits

**Excellent Hydraulic Efficiency**
Improves hydraulic system efficiency, which can lead to lower energy consumption in industrial and marine operation, reducing operating costs and improving productivity.

**Ultra Keep-Clean Performance**
Protects critical components such as tight-tolerance servo and proportional valves from malfunction, reducing system deposits and extending component life.

**Shear-Stable, High Viscosity Index**
Maintains hydraulic efficiency and component protection over a wide operating temperature range, at both low and high temperatures.

**Oxidation & Thermal Stability**
Helps extend oil and filter change intervals while supporting clean systems, even under harsh operating conditions.

**Anti-Wear Protection**
The zinc-free anti-wear system and strong film strength provide a high degree of protection for gear, vane, and piston pumps, resulting in fewer breakdowns and improved production capacity.

**Air Release, Seal & Metal Compatibility**
Excellent air separation helps prevent aeration, cavitation damage, and micro-dieseling in low-residence-time systems, with good compatibility with elastomers, seals, and a wide variety of metals.

## Applications

**MAXFLUID MaxHydro HDZ 100 is recommended for:**

- Modern high-pressure industrial hydraulic systems
- Marine hydraulic systems
- Systems using high-pressure, high-output pumps
- Gear, vane, and piston pumps
- Systems with tight-tolerance servo and proportional valves
- Hydraulic systems operating over a wide temperature range
- Low oil residence time systems where air release is critical
- Equipment requiring a zinc-free anti-wear hydraulic fluid

Always follow the equipment manufacturer's lubricant recommendations.



**Phone:** 0311-0828790
**Email:** contact@maxfluidoil.com
**Web:** www.maxfluidoil.com

## Product Advantages

- Premium ISO VG 100 HVI hydraulic oil
- Zinc-free anti-wear formulation
- Shear-stable, high viscosity index for wide temperature range
- Ultra keep-clean performance
- Excellent oxidation and thermal stability
- Excellent air release characteristics
- Good compatibility with elastomers, seals, and multiple metals
- Passes acute aquatic toxicity test (LC-50, OECD 203)
- Helps reduce energy use, maintenance costs, and downtime

## TYPICAL PHYSICAL CHARACTERISTICS

| PROPERTIES | UNIT | METHOD | MaxHydro HDZ 100 |
|---|---|---|---|
| ISO Viscosity Grade | - | - | 100 |
| Kinematic Viscosity @ 40°C | cSt | ASTM D445 | 99.8 |
| Kinematic Viscosity @ 100°C | cSt | ASTM D445 | 13.00 |
| Viscosity Index | - | ASTM D2270 | 127 |
| Brookfield Viscosity @ -20°C | cP | ASTM D2983 | 11240 |
| Brookfield Viscosity @ -30°C | cP | ASTM D2983 | 57800 |
| Brookfield Viscosity @ -40°C | cP | ASTM D2983 | - |
| Tapered Roller Bearing Viscosity Loss | % | CEC L-45-A-99 | 7 |
| Density @ 15°C | kg/l | ASTM D4052 | 0.8773 |
| Copper Strip Corrosion (3 hrs @ 100°C) | - | ASTM D130 | 1B |
| FZG Gear Test | Fail Stage | DIN 51354 | 12 |
| Pour Point | °C | ASTM D97 | -33 |
| Flash Point | °C | ASTM D92 | 258 |
| Foam Sequence I, II, III | ml | ASTM D892 | 20/0 |
| Dielectric Strength | kV | ASTM D877 | - |
| Acute Aquatic Toxicity | - | LC-50, OECD 203 | Pass |

*The values shown are typical characteristics and may vary within normal manufacturing tolerances.*

## Health and Safety

MAXFLUID MaxHydro HDZ 100 is a high-performance hydraulic oil intended for professional industrial and marine hydraulic applications. Under normal operating conditions and when handled correctly, the product is not expected to present significant health or safety hazards.

Avoid prolonged or repeated skin contact and prevent contact with eyes. Wear appropriate personal protective equipment (PPE), including protective gloves and safety glasses, when handling the product. Ensure adequate ventilation in enclosed areas and avoid inhalation of oil mists.

Store in tightly sealed containers in a cool, dry, and well-ventilated area away from direct sunlight, heat sources, and incompatible materials. Prevent spills from entering drains, waterways, or soil.

For detailed information regarding safe handling, storage, transportation, and disposal, refer to the latest Safety Data Sheet (SDS) for MAXFLUID MaxHydro HDZ 100.



**Phone:** 0311-0828790
**Email:** contact@maxfluidoil.com
**Web:** www.maxfluidoil.com