



Super Hyrando WP

Anti-Wear Long-Life Hydraulic Fluid

Super Hyrando WP (World Product) is hydraulic fluid designed for the rigors of construction machinery applications. Super Hyrando WP has exceptional anti-wear and long-life properties. It is also suitable for high-pressure hydraulic systems in forging presses and other large industrial machinery.

Super Hyrando WP is available in three viscosity grades: 32, 46 and 68. VG46 and VG68 have flash points above 250 °C, guaranteed.

• Special Features

1. Outstanding anti-wear protection

Super Hyrando WP is formulated with zinc-free extreme pressure additives with exceptional anti-wear properties, to protect against wear problems in high-pressure hydraulic pumps.

2. High oxidation stability and thermal stability

Formulated with highly refined base stock and high performance antioxidants, Super Hyrando WP stands up to high temperatures with minimal sludge formation. This helps prevent problems of malfunctioning valves and blocked filters.

3. Excellent anti-stick-slip properties

Super Hyrando WP contains an anti-stick-slip additive to reduce noise from hydraulic cylinders.

4. Superior brake torque performance

Super Hyrando WP outperforms conventional zinc-free hydraulic fluids in braking torque to help prevent problems with hydraulic brakes.

5. Viscosity grades 46 and 68 are “Combustible Liquids”

Super Hyrando WP46 and WP68 are classified as Combustible Liquids under Japan’s Fire Service Law, and have flash points above 250 °C, guaranteed.

• Handling requirements for Combustible Liquids under Japan’s Fire Service Law:

1. Under the Fire Service Law, when combustible liquids are stored together with hazardous materials, they must be kept at least one meter apart.
2. In quantities of 2 KL and above, Combustible Liquids are considered “Designated Hazardous Materials” and are subject to municipal regulations (in Japan); be sure to familiarize yourself with rules and regulations in your area.

• Applications

Hydraulic systems in construction machinery, forging presses & other large industrial machinery and industrial vehicles.

• Containers

Tank trucks, 200 liter drums & 20 liter pails.

● **Typical properties of Super Hyrando WP**

Grade			VG32	VG46	VG68
Density	(15 °C)		0.846	0.854	0.870
Kinematic viscosity	(40 °C)	mm ² /s	34.7	45.7	67.5
	(100 °C)	mm ² /s	6.36	7.51	9.09
Viscosity index			136	130	110
Flash point	(COC)	°C	246	260	266
Acid number		mgKOH/g	0.07	0.07	0.07
Pour point		°C	-42.5	-35.0	-25.0
Rust prevention	(Artificial seawater, 24h)		Pass	Pass	Pass
Copper strip corrosion	(100 °C, 3h)		1a	1a	1a
FZG test	(Fail Stage)		12	12	12

Note: the typical properties are subject to change without notice. (July 2008)



Handling Precautions

▼ Follow these precautions when handling this product.

! CAUTION Handling Precautions	● <u>Inflammation can occur if oil enters the eyes.</u> When handling this oil, wear <u>protective goggles</u> or take other measures to <u>prevent eye contact</u> .
	● <u>Inflammation can occur if oil comes into contact with skin.</u> When handling this oil, wear <u>protective gloves</u> or take other measures to <u>prevent skin contact</u> .
	● Do not drink this oil. (Swallowing this oil can cause diarrhea and nausea.)
	● <u>Keep out of reach of children.</u>
	● Read the Material Safety Data Sheet (MSDS) for this product before using the product. Obtain the Material Safety Data Sheet from where you purchased the product.
	● In case of eye contact, rinse eyes thoroughly with clean water and consult with a physician.
First Aid	● In case of skin contact, wash skin thoroughly with soap and water.
	● If this oil is swallowed, do not induce vomiting. Consult with a physician immediately.
	● Do not apply pressure to empty containers. The containers may burst if pressure is applied.
Disposal of Used Oil and Containers	● Do not weld, heat, drill, or cut the containers. The remaining oil may ignite and the containers may explode.
	● Follow all applicable laws and regulations when disposing of used oil or containers. If you are unsure of the proper disposal methods, consult first with the seller of the oil.
	Seal the container tightly after use in order to prevent dirt, moisture, etc., from entering the oil. Store in a dark location. Avoid direct sunlight.
Storage Method	