

HYRANDO JINEN TX

Biodegradable Flame-retardant Hydraulic Fluid

In construction machines and hydraulic machineries used in the sea, a river, a lake, there is a risk that the environment will be polluted due to leaks of hydraulic fluid or the spraying of fluid from ruptured equipment. A very effective method to eliminate the pollution risk and to improve work safety is to adopt a biodegradable hydraulic fluid. **HYRAND JINEN TX**, which is formulated with fatty acid esters as base oil, provides superior biodegradability. Also, it can be used as a flame-retardant hydraulic fluid due to its high flash point and fire point.

● Special Features

1. Excellent Biodegradability

With the OECD301B for testing the biodegradability of chemical substances, a biodegradation rate of over 60% is considered to have biodegradability. The biodegradability of **HYRANDO JINEN TX** is more than 60%, and is registered as eco mark product.

2. Good Flame-Retardant Property

HYRAND JINEN TX has higher flash point and fire point compared with mineral oil, because its base oil is synthetic fatty acid esters, and provides good flame-retardant property.

3. Superior Oxidation Stability

Because **HYRAND JINEN TX** is formulated with synthetic ester and high performance anti-oxidant, it has superior oxidation stability compared with conventional ester type hydraulic fluid. It produces extremely little sludge in pumps, valves, filters or other devices for long periods.

4. Excellent Lubrication and Wear Resistance

Thanks to the outstanding oiliness of its base oil and the effects of its carefully selected additives, **HYRAND JINEN TX** possesses superb lubricity. As a result, it provides excellent durability even with pumps, valves, and other hydraulic devices that are used under very severe conditions.

5. Good Viscosity-Temperature Property

HYRAND JINEN TX, which has high viscosity index and low pour point, provides stable lubricity performance across a wide range of temperatures.

6. Excellent Rust Prevention

HYRAND JINEN TX, which is formulated with a high performance rust inhibitor, delivers excellent rust protection from existing water in hydraulic instruments.

7. Good Compatibility with Metals

Since **HYRAND JINEN TX** has good compatibility with metal materials, it does not affect the materials of hydraulic equipment such as pumps and valves.

8. Good Compatibility with Seal Materials

HYRAND JINEN TX's compatibility with seal materials is nearly the same as that of mineral oil based anti-wear hydraulic fluids.

● Applications

- (1) Construction machinery (hydraulic shovel et al.)
- (2) Hydraulic devices in continuous casting machines and other steelmaking equipment
- (3) Hydraulic devices of electric and heating furnace
- (4) Die cast machines, forging presses, hydraulic presses
- (5) Hydraulic facilities which have high risk of environmental pollution and the fire by the leak of the oil

● Containers

200-liter drums and 20-liter cans

● Typical Properties of HYRANDO JINEN TX

ISO VG			46	56
Appearance			Light yellow, Liquid	Light yellow, Liquid
Color	(ASTM)		L1.0	L1.0
Density	(15 °C)	g/cm ³	0.921	0.920
Kinematic viscosity	(40 °C)	mm ² /s	46.8	51.4
	(100 °C)	mm ² /s	9.37	10.3
Viscosity index			189	194
Flash point	(COC)	°C	312	310
Fire point		°C	368	368
Pour point		°C	-37.5	-27.5
Acid number		mgKOH/g	0.25	0.30
Rust test (artificial sea water, 24 h)			Pass(No rust)	Pass(No rust)
Biodegradability(OECD301B)		%	> 60	> 60

Note: The typical properties may be changed without notice. (April 2014)



Handling Precautions

▼ Follow these precautions when handling this product.

Composition :	Base Oil, Additives
Precautionary pictograms:	
Signal word:	Warning
Hazard Statement:	Suspected of causing cancer
Precautionary Statements:	<ul style="list-style-type: none"> • Do not handle until all safety precautions have been read and understood. • Wear protective gloves/protective clothing/eye protection/face protection. • Do not allow the eyes to become exposed to the product. Do not swallow the product. • Do not breathe dust/fume/gas/mist/vapours/spray. • Wash hands thoroughly after handling. • Do not eat, drink or smoke when using this product.
Prevention	
Response	<ul style="list-style-type: none"> • IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. • IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. • If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician. • IF ON SKIN: Wash with plenty of soap and water.
Storage	<ul style="list-style-type: none"> • The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight. • Containers that have been opened must be tightly sealed.
Disposal	<ul style="list-style-type: none"> • Dispose of contents/container in accordance with local/regional/national/international regulations. • If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.