

4631 Water-glycol Fire Resistant Hydraulic Fluid

SINOPEC 4631 water-glycol fire resistant hydraulic fluid is highly refined fire resistant hydraulic fluid taking water and glycol as base fluid with plural additives such as anti-wear agent, anti-oxidizer, rust inhibitor, defoamer and so on. According to international classification standard, it belongs to water-glycol fire resistant hydraulic fluid of ISO-L-HFC type. It also meets requirements of MIL-H-22072C.

Advantages

- ⊙ Excellent fire resistance, ensuring application safety in case of high temperature and contact with open flame
- ⊙ Extremely low freezing point, ensuring easy startup in condition of low temperature
- ⊙ Perfect high temperature stability (stable real solvent), no deterioration in long storage period of 2 years
- ⊙ Good gas/liquid phase anti-rust ability, and anti-corrosion property for copper, meeting anti-rust requirement for gas and liquid phases
- ⊙ Outstanding lubricity, ensuring lubrication and service life of hydraulic oil pump
- ⊙ A long service life not less than 10,000hrs under normal operating mode and work conditions

Performance Specification

The product meets the following specifications:

- ⊙ Q/SH PRD122—2008

Applications

- ⊙ Important fire resistant hydraulic medium comprehensively used in hydraulic system in conditions of open flame and high temperature. Suitable for hydraulic systems requiring fire resistance in such industries as steel, coal mine, light industry, chemical engineering, machining, plastic processing, such as gate of coke furnace, coke guide, pressure die casting machine, top bell, extruder, mechanism for lifting gas hood if converter, forging press, electric furnace cover, dump hopper, casting machine, steel ladle slide gate, conticaster, hot-rolling mill, welding robot, plastic extruder, automatic welding fixture, surface plating machine, glass moulding machine, etc
- ⊙ Applied temperature range: -50℃ ~ 60℃ ; applied pressure: 20MPa

Typical Properties

Items	4631 water-glycol fire resistant hydraulic fluid	
	40	50
Appearance	Transparent liquid of red	
Kinematic viscosity, mm ² /s		
40℃	42.96	51.2
-18℃	923	910
Viscosity index	185	230
Density (20℃), g/cm ³	1.082	1.080
Freezing point, ℃	<-50	<-50
pH value	8.9	10.2
Corrosion (T ₂ Cu, 50℃ × 3hrs)	1a	1a
Foam property, ml		
Foam tendency	None	15
Foam stability	None	None

Similar Foreign Products

4631 performs as good as the following products:

- ⊙ Houghton Safe620
- ⊙ Mobil Nyvac FR200D, Nyvac 20, HFC 46
- ⊙ BP Enersyn SF-C
- ⊙ Shell Iruv C46

Application Examples

- ⊙ A steel work of a steel group: hydraulic system of desulfurization, plunger pump, 1500rpm, 160kg/cm²
- ⊙ An engine company: casting equipment, 965rpm, 140kg/cm² ~ 150kg/cm²
- ⊙ A hot rolled plate factory of a steel group: hydraulic system of crimping machine 273L/min, 90kg/cm²
- ⊙ A steel work: hydraulic system of conticaster, plunger pump, 1600rpm, 100kg/cm²
- ⊙ A iron-forging branch of a group: pressure die casting machine, vane pump, 975rpm, 140kg/cm², etc

Special Attentions

- ⊙ Max service temperature: not exceeding 55℃ for open type oil tank and 65℃ for close type oil. In case of high temperature, hydraulic viscosity to be increased by excessive evaporation of water, application effect to be affected
- ⊙ Attention shall be given to compatibility against metal and non-metal material when use this product
- ⊙ This product is compatible with following materials: epoxy resin, Bakelite, bronze (Pb<20%), brass, red copper, plastics, NBR, FKM, silicon rubber, PTFE, nylon, and paper soaked in xylonite and bakelite
- ⊙ This product is incompatible with following materials: industrial paint (alkyd paint), Cd, Mg, Pb, Zn (excluding thin zinc coat), Al (excluding alloyed anodized Al), natural rubber, PUR, leather, cork, common filter paper and asbestos, etc
- ⊙ Do not mix with hydraulic medium in form of mineral oil, emulsion and ester, thus clean the hydraulic system before fill this product
- ⊙ Regularly check (generally 3months) the appearance, viscosity, pH value, foam of product, and resolve any problems found during the operation

Packing

- ⊙ To be packed with 200L plastics sprayed iron barrel or as required by customer