



VESTAN FR

(Food Grade, Fire Resistant Glycol-Water Hydraulic Fluid)

VESTAN FR is a premium **food-grade** water glycol type fire resistant hydraulic fluid designed to provide optimal performance and durability for hydraulic systems where safety concerns demand the unique properties of these fluids.

VESTAN FR is formulated as a phenol-free fluid with excellent lubricity, shear stability, antiwear, rust protection and defoamants. It provides low wear (50 mg) on the Vickers vane pump test (ASTM D-2882).

VESTAN FR resists freezing (-58 F pour point). Its exceptional low temperature fluidity provides applications not normally possible with mineral oil products of comparable viscosity grades. This product provides excellent corrosion resistance to bronze, copper and steel metallurgy and it exhibits superior antifoam properties.

VESTAN FR is **incompatible** with petroleum oil. Care should be taken to make sure the two are not mixed. Contact your representative for details on converting from a mineral oil hydraulic fluid to **VESTAN FR** fluid.

VESTAN FR is compatible with most seal and hose materials. It may not be compatible with polyurethane and silicone seals or materials that swell in the presence of water such as cork shaft seals or leather packings. Zinc or cadmium plated components should not be used. **VESTAN FR** can be used with most kinds of pumps including vane, piston and gear type units.

APPLICATIONS:

VESTAN FR is recommended for food processing plants where fire hazards exist near hydraulic fluid lines. It meets the FDA Specification 21, CFR 178.3570 for lubricants with incidental food contact.

VESTAN FR meets factory mutual test

requirements (Group 1 HF-C less flammable fluid) for water glycol fire resistant fluids. Operating system temperatures should not exceed 175 F.

VESTAN FR is recommended for applications calling for a water-glycol hydraulic fluid such as: Denison HF-4, Factory Mutual Group 1, US Steel 171, or Ford M6C1C. It should be used in areas using fryers, ovens, cookers or any other methods requiring heat applications. Most insurance companies and risk management organizations recognize the need for this less flammable fluid.

VESTAN FR is *not* recommended for use as a conventional antifreeze coolant.

BENEFITS:

- SUPERIOR FIRE RESISTANCE
- COMPATIBLE WITH OTHER WATER-GLYCOL FLUIDS
- EXCELLENT LUBRICITY & CORROSION PROTECTION
- EXCELLENT LOW TEMPERATURE FLOWABILITY
- COLORLESS FLUID

CARE AND MAINTENANCE

Operation of fire resistance water glycol fluids requires periodic monitoring to eliminate problems with fire resistance or viscosity variations. Water content should be determined on a regular basis with the use of a refractometer or the Karl Fisher titration procedure.

Contact your representative for details on our service maintenance program for this product.

Recommendations on water additions are shown below.



VESTAN FR

(Food Grade, Fire Resistant Glycol-Water Hydraulic Fluid)

TYPICAL CHARACTERISTICS

Product Code	16433
Appearance	Colorless liquid, slightly turbid
ISO Viscosity Grade	46
Specific Gravity (ASTM D-1298)	1.06
Density, lb/gal	8.83
Viscosity (ASTM D-445):	
SUS @ 100°F	205
cSt @ 40 C	44
Freezing Point, °F, (°C)	-58 (-50)
Percent water	40
Flash and Fire Point	Fire resistant, contains water
pH	9.5
4-ball wear (40 kg, 130 F, 1800 rpm)	0.80 mm scar
Reserve alkalinity*	14.0

The above data is subject to usual manufacturing variation. For more information and availability, call 1-800-442-LUBE.
01/08/2007

RECOMMENDED ADDITIONS FOR VESTAN FR FLUID

Viscosity Range, SUS @ 100 F	<u>Fluid to be Added</u>	<u>Gallons to be added per 100 gallons fluid</u>
140-160	Concentrate	10
160-180	Concentrate	5
180-220	none	0
220-300	Water	5
300-350	Water	10
350-410	Water	15