Enersyn SF-D 0302M

Fire-Resistant Hydraulic Fluid, Type D (Phosphate-Ester Base)

Description; Description

This is a synthetic (phospate-ester) water-free fire-resistant hydraulic fluid. It is classified under CETOP classification HF-D fluids.

Enersyn SF-D 0302M contains corrosion and oxidation inhibitors and has an excellent hydraulic performance and good fire-risk protection.

Applications; Applications

This fluid is suitable for use in hydraulic systems where there is risk of fire in the event of leakage or pipe fracture, and where water-containing fluids are unsuitable due to temperature limitations or for other reasons. Enersyn SF-D 0302M has been specially formulated to meet the requirements of hydraulic control systems on turbines and complies with VDMA standard for FR fluids and the draft DIN Standard DIN 51515 part 2 - FR Governor Fluids. The following turbine manufacturers have approved Enersyn SF-D 0302M : ABB (Switzerland); KWU & MAN Germany.

Service precautions- Periodic checking of the fluid neutralization number (mgKOH/g) should be made during service as this provides a good guide to any product degradation which may occur. The level and rate of change of neutralization value will be dependent upon the installation, conditions of operation, and whether any in-line filtration is carried out.
Conversion precautions- It is essential that rigorous flushing should be carried out when converting systems from other fluids to phosphate esters. All scale should be removed, and filters, hoses, internally painted surfaces should be checked for compatibility.

Main Benefits; Main Benefits

- Offers good fire-risk-protection in systems where fire-resistance is of vital importance and where water-containing fluids are unsuitable due to temperature limitations or for other reasons.

- Long record of trouble-free service in highly demanding hydraulic control systems on turbines.

Storage; Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and the obliteration
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Health, Safety and Environment; Health, Safety and Environment

Health, safety and environmental information is

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provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products.; Health, safety and environmental information is provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products.

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Typical Characteristics; Typical Characteristics

	Test Methods; Test Methods	Units; Units	Grade :; Grade :
Density at 15 °C	ISO 3675, ASTM D1298	kg/m³	1140
Kinematic viscosity at : 20 °C	ISO 2592,ASTM D92	mm²/s	170
40 °C			42
50 °C	ISO 3105,ASTM D445		25
100 °C			5.1
Pour point		°C	<-24
Fire point	ASTM D92	°C	368
Autoignition Temperature	ASTM D2155	ºC	575
Appearance			Transparent Pale Yellow
Neutralization value		mgKOH/g	0.03
Corrosion - rust protection	ASTM D664		pass
Copper corrosion, 3h at 100 °C	ISO 2160,ASTM D130		class1
FZG gear test :	ISO 7210,ASTM D665A	load stage	8
A/8.3/90 °C		failure	
Vane-pump test, 250 h at 140 bar IP 334		pass	
Air release value	IP 281	min	<2
Demulsification number	IP 313	s	100
Emulsion characteristics	IP 19	min	2
Combustion behaviour (fabric strip)			<5, self-extinguishing

The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.

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