

## FIRE RESISTANT HYDRAULIC FLUIDS

Hydraulic fluids are commonly made of combustible mineral oils. In areas with a high risk of fire or explosion, mineral oils represent a significant safety hazard. Consequently, PETROFER has a full range of fire resistant and fire retardant hydraulic fluids. These products have been continually improved over the past 50 years, resulting in PETROFER being a market leader in this technology. Accordingly, our modern fire resistant and fire retardant hydraulic fluids do not only fulfill the primary task of pressure transmission; furthermore, they have the highest standard of fire prevention, anti-wear properties, corrosion inhibition and long term resistance against microbial attack. We also hold many OEM approvals for the product range.

## A HFA TYPE HYDRAULIC FLUIDS

These are highly aqueous fluids based around mineral oil, ester or synthetic technology for all types of applications. These fluids are divided into the groups HFA-E and HFA-S. Mineral oil and ester based chemistry with a water content of at least 95% determine HFA-E fluids. Wheras HFA-S solutions are fully synthetic chemical solutions in a minimun of 95% water. Our modern products meet the most challenging technical and ecological requirements and are approved by well known OEMs. Due to their exceptional fire resistance these products are typically used in underground mining and tunnel boring equipement.

## B HFC TYPE HYDRAULIC FLUIDS

These types of fire resistant hydraulic fluids are water glycol solutions with anti-corrosion properties. Due to the careful selection of raw materials our HFC products fulfil the highest technological requirements with outstanding anti-wear behaviour. For many years ULTRA-SAFE has been used successfully, particularly in the die-casting industry, due to its specification as a truly fire resistant hydraulic fluid. There are many further applications, for example in the military and marine sectors. For decades, there has been a very good cooperation with all important OEMs in the die-casting industry. All major approvals are available.

## C HFD TYPE HYDRAULIC FLUIDS

The term fire resistant hydraulic fluid is a family group of products encompassing both fire resistant and fire retardant chemistries. HFD products are water free, synthetic hydraulic fluids, termed fire retardant in their specification. Our ENVOLUBRIC products are HFD-U specification with similar hydraulic properties to conventional hydraulic oils. Due to their composition, ENVOLUBRIC products show excellent stability against ageing and hydrolysis as well as outstanding anti-corrosion properties. Our products are characterised by high flashpoints and high auto-ignition temperatures. They are typically used as a mineral oil replacement in presswork, hot forming, plastic moulding and where full fire resistance is not required.

Another grade of HFD technology is HFD-R based on phosphoric acid esters. Our ULTRA-SAFE 1120 meets the standard and is classed as fire retardant, typically it is used in steam and gas turbine management control systems.



PETROFER is a system supplier and offers perfectly coordinated chemistry along the entire production process route.

	HEAT TREATMENT
2	DIE-CASTING AND FORGING
3	FIRE RESISTANT HYDRAULIC FLUIDS
4	METALWORKING FLUIDS
	METAL FORMING LUBRICANTS
6	INDUSTRIAL LUBRICANTS
	INDUSTRIAL CLEANERS
	RUST PREVENTATIVES
9	PAPER CHEMICALS
	SUPPORT

For further information please visit or contact through our website www.petrofer.com

