

Erifon HD 603 N (UK)

Hydraulic and BOP Control Concentrate

Cost Effective Hydraulic and BOP Control Fluid Concentrate for environmentally sensitive areas

General Description

Erifon HD603 N has been specifically formulated to have exceptionally high biodegradability, all of the chemicals in the fluid have been proven to biodegrade readily. This fluid also contains additives to prevent sticking of valves left static for long periods and to improve system life for slow moving and high load applications. Erifon HD 603 N is a fully synthetic hydraulic fluid concentrate, formulated for use at concentrations as low as 2% (dependant upon application) in fresh or potable water.

The product exhibits excellent stability, anti-wear and anti-corrosion properties. It also possesses an increased resistance to microbiological attack when compared to other fluids recently released on to the BOP fluid market. These features coupled with it being extremely economical in use, make Erifon HD603 N an ideal hydraulic operating medium for equipment designed for high water based fluid.



Erifon HD603 N is particularly well suited to operations in hazardous environments and where fluid losses may be high such as High Pressure Blow-Out Preventer Systems.

The Erifon HD range has come to be regarded worldwide as the leading BOP control fluid and is in use on a large number of offshore installations, Erifon HD 603 N is the latest fluid in this range.

Salient Features

High dilution ratio As Erifon HD 603 N is used at dilution ratios as high as 50:1 with fresh water it is very economical to use, even when system losses due to leakage are high. Storage space and transportation costs are also minimized. The high operating dilution does not, however, mean that performance has not been compromised in any way. Erifon HD603 N contains a sophisticated additive

package to ensure that safety and reliability of the hydraulic system are maintained.

Low Toxicity Erifon HD 603 N has been screen tested for inclusion in the PARCOM testing program. Testing shows the toxicity to be extremely low. This combined with extremely high biodegradability make Erifon HD603 N ideal for use in environmentally sensitive areas of the globe.

All the components in this fluid are over 80% biodegradable in the marine OECD 306 test except one, which still has a high biodegradation rate of 55% within the 28-day period with no indication of bioaccumulation potential.

Material Compatibility Erifon HD603 N is inhibited to prevent corrosion of ferrous metal alloys, even when electrolytic effects prevail where multi-metal couples are encountered. The fluid will also have no adverse effect on the seal packing compounds generally used in the construction of the hydraulic systems. Paints of the cured epoxy nylon or phenolic type may be used without being significantly effected by the fluid. The painting of internal surfaces of hydraulic systems is not advised.

Anti-Wear Properties Considerable care has been taken to give Erifon HD603 N excellent anti-wear properties, particularly where metal - metal rubbing contacts occur. This is of particular importance in modern control systems using shear - seal valves with metal - metal-sealing faces, and where hydraulic system pressures are high.

The following graph compares the lubricating properties of Erifon HD603N with the benchmark for lubrication in the BOP market, Erifon HD856 and Water. This testing was done on the Falex lubricant tester, one of the standard methods for assessing lubrication in the offshore industry.

Stability Erifon HD603 N contains twice the amount of a broad-spectrum anti-microbiological package to minimize the affects of bacteria and fungal activity found in previous fluids. This aspect alone can greatly reduce hydraulic system maintenance and repair costs. In addition, the high product stability, achieved by using soluble rather than emulsifiable products as a basis for the formulation ensures that separation does not take place. This makes Erifon HD603 N an ideal product for use in systems, which make extensive use of high-pressure air accumulators

Dilution Erifon HD603 N is formulated for use in BOP systems at concentrations as low as 2% in fresh water. For most other applications a concentration of 3% should be satisfactory. In the case of very severe conditions, such as very high contact loads or sensitive pumping equipment, the concentration may be increased as much as 5-7% if required. Glycol may be added as required to provide anti-freeze protection.

Where conditions are much less severe it is possible to dilute Erifon HD603 N at 2% and still achieve a high level of performance.

The MacDermid Technical Staff will be happy to advise of the optimum dilution to be used for a specific application.



Physical Properties Table:

Physical Properties	
Appearance	Clear Dark Yellow Mobile Fluid
Viscosity	740
-20 °C	-4°F
0 °C	32°F
20 °C	68°F
40 °C	104°F
82	20
7	
Pour Point	-40 °C (-40°F)
pH of Concentrate	10.4
pH at 2% Dilution	9.7
Specific Gravity	1.063

Information given in this publication is based upon technical data gained in our own and other Laboratories and is believed to be true. However the material is used in conditions beyond our control thus we can assume no liability for results obtained or damages incurred through the application of the data presented herein.



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