

Key Benefits

- **Recommended for treatment of microbiological contamination in hydraulic systems**
- **Improves operational life of fluids and control systems**
- **Fast-acting broad spectrum biocide at 2% treat rate**
- **Active detergents to breakdown and disperse contamination; High foaming to ensure treatment of air and head spaces**
- **Alkalinity neutralizes acid degradation products in the system**
- **Soluble with Oceanic HW production control fluids, Erifon BOP & Erifon motion compensator fluids**
- **Adaptable flushing procedures depending upon operational requirements**
- **Treatment effectiveness checked by Free Fluid Monitoring programme**

Description

Erifon Systems Cleaner is an aqueous mild alkaline cleaner with highly effective anti-microbial and detergent properties. At low treat rates (2%) it is effective against bacteria, fungi and yeast, breaks down biofilms, oil, grease, dirt and sludge deposits and neutralises acid degradation products.

This pale straw mobile fluid is used as a remedial treatment for contaminated hydraulic equipment or as a preventive treatment to improve hydraulic fluid and system service life.

Storage

Erifon Systems Cleaner should be stored in dry conditions, ideally out of direct sunlight. Normal storage temperature range is 5 to 40°C.

Typical Physical Properties

	Erifon Systems Cleaner (UK)	Erifon Systems Cleaner (US)
Appearance	Pale Straw Mobile	Pale Yellow Mobile
pH (neat)	10.6	10.5-11.5
pH (2%)	10.4	10.0
Specific Gravity	1.11 @ 15.6°C (60°F)	1.12 @ 20°C (68°F)
Solubility		
Water	Soluble	Partially Soluble
Polar Solvents	Partially Soluble	Partially Soluble
Hydrocarbons	Insoluble	Insoluble
Surfactancy		
Effectiveness of Anionics	Positive	Positive
Effectiveness of Non-ionics	Positive	Positive
Foam Number @1% dilution	25	25
Pour Point	<-20°C (-4°F)	<-20°C (-4°F)



Material Compatibility

Erifon System Cleaner contains surface active components which effectively remove oil, dirt and biological contamination from systems. In concentrated form, active components may adversely affect system materials. Operational dilutions of Erifon Systems Cleaner (2%) are expected to be compatible with materials typically used in oilfield equipment; however, long term exposure may adversely affect some materials. Therefore, flushing and cleaning procedures should not last more than 48 hours.

For further recommendations, technical information, Health & Safety data sheets, OEM or environmental approvals, email wigansales@macdermid.com

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Flushing Procedure(s)

A general procedure can be used when carrying out a cleaning and flushing operation with Erifon Systems Cleaner. The procedure can be broken down into a series of steps, with minor variations depending upon whether the system is new or in service.

1. Prepare an Erifon System Cleaning solution depending upon system requirement:

New systems: prepare fresh control fluid, as the carrier medium, diluted to the normal operating level and add 2% Erifon Systems Cleaner. Completely fill the HPU (hydraulic power unit) reservoir with the cleaning fluid.

Operational systems (Water based fluids): add appropriate volume of Erifon Systems Cleaner directly to the HPU reservoir to obtain 2% operational cleaner dilution.

Conversion of non-aqueous systems to water based fluid: drain down system as much as is feasibly possible. Refill the HPU completely with a fresh potable water containing 2% Erifon Systems Cleaner and 2% Erifon BOP fluid concentrate (HD856, HD603HP, EcoMac).

2. Cleaning solution in the HPU reservoir can be thoroughly agitated using an air line. The resulting foam will clean internal reservoir surfaces which would otherwise be inaccessible.

3. Discharge accumulators on the HPU to waste, recharge from the HPU reservoir rapidly to create maximum turbulence. Repeat operation twice more.

Note: micro-organisms can thrive in accumulators.

4. Once accumulators are charged, using the HPU as a power source, flush Erifon Systems Cleaner solution through all control panels, pipework, hoses, valves and manifolds. Where necessary, break lines at the end connections of the control system to bleed "dead" portions and then reconnect. Cycle fluid up to three times.

Note: Cleaning power can be improved with turbulence and a soak period of 24-48 hours

5. Flush Erifon System Cleaning solution from equipment.

Note: pH meter or pH test papers register an increase in fluid pH when Erifon Systems Cleaner solutions are present. For subsea detection, Oceanic Red or Yellow LTF can be added to the Erifon Systems Cleaner Solution.

6. Refill the HPU with fresh Erifon System Cleaning solution, repeat steps 4 & 5.

7. Refill the HPU with operational fluid or equipment preservation fluid:

New systems: if systems are to be commissioned within 1-3 months, the system may be filled with operational fluid. Care should be taken to minimise contaminant ingress.

Note: Oceanic EPF and Erifon CLS fluids contain vapor phase corrosion inhibitors which effectively protect air spaces from corrosion. Erifon CLS is designed for storage and operation of closed loop BOP systems destined for closed loop service. Oceanic EPF is designed for long-term storage.

Operational systems (Water based fluids): recommence normal operations

Conversion of non-aqueous systems to water based fluid: recommence normal operations

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