



Safety Fluid HF-B

Proven performance fire resistant hydraulic fluid

Product description

Safety Fluid HF-B are proven performance, stable and ready-to-use fire resistant hydraulic fluids which conform to British National Coal Board specification 570/1981.

These water-in-oil emulsions are formulated for a wide range of hydraulic system applications and offer a high degree of fire resistance in hazardous operations.

Customer benefits

- High level fire resistance contributes to greater workplace safety and workforce welfare in hazardous operations
- Ready-to-use formulation offers stable performance between -10°C and +80°C and retains emulsion properties from freeze to thaw
- Reliable wear protection and corrosion resistance helps reduce maintenance downtime and costs
- Compatible with a wide range of seals and metals including silver, copper, brass, cast iron, steel and aluminium
- Conforms to British National Coal Board specification 570/1981
- Water-in-oil emulsion formulated for use in a wide range of hydraulic systems

Product highlights

- **Fire resistance in hazardous operations**
- **Ready-to-use formulation**
- **Wear and corrosion protection**
- **Compatible with a wide range of seals and metals**

Selected specification standards include:

British National Coal Board
specification number
570/1981

7th Luxembourg Report

Applications

- Safety Fluid HF-B products are recommended as hydraulic fluids where the use of conventional hydraulic fluids would present a risk of fire and where an emulsion-type hydraulic fluid is specified. They are suitable for use in hydraulic coal mining equipment and hydraulic pit-props
- Safety Fluid HF-B products are recommended for a wide range of hydraulic systems in fire hazard areas, including welding machines, mobile equipment and hydraulically operated and manipulated systems in steel mills and around furnace areas
- Applications include systems powered by gear pumps, axial, radial and inline piston pumps, rotary abutment pumps, and axial and radial piston motors

Note: Avoid the indiscriminate addition of water, as this will have serious effects on the products' stability and viscosity. Have a sample analysed by the supplier and follow advice if water needs to be added.

Do not top up with an equivalent product as this may have an impact on the performance and properties of Safety Fluid HF-B.

Approvals, performance and recommendations

- British National Coal Board specification number 570/1981
- 7th Luxembourg Report

Typical test data

Test	Test methods	Results	
Viscosity Grade		68	100
Product Code		002410	027293
Appearance	Visual	White emulsion	Fluorescent yellow emulsion
Kinematic viscosity at 40°C, mm ² /s	ASTM D445	68	100
Density at 15°C, kg/l	ASTM D1298	0.925	0.931
Water content, %	ASTM D95	41	41

Product maintenance and handling

Typical working pressures for different pump types

Limitation on speed may be recommended unless the pump has been designed for use with these fluids. In case of doubt, contact the pump manufacturer.

Pump type	Pressure (bar)
Axial Piston Pumps	Up to 207
Gear Pumps	Up to 138
In Line Piston Pumps	Up to 207
Radial Piston Pumps	Up to 138
Rotary Abutment Pumps	Up to 69
* Vane Pumps	Up to 138
Axial Piston Motors	Up to 138
Radial Piston Motors (Low speed, high torque)	Up to 193

- Clean breather unit
- Check all pipework and joints to ensure no leakages occur
- The system is now ready for normal operation
- If the system fluid is being changed to water-in-oil emulsion from water-glycol, it is advisable - if the system cannot be thoroughly cleaned manually - to flush all pipework with a charge of low viscosity mineral hydraulic fluid. After draining, follow recommendations for Safety Fluid HF-B fluids above

Fluid change procedure

When changing to Safety Fluid HF-B in a hydraulic system which has previously operated on mineral oil:

- Drain reservoir
- Swab out reservoir using cloths, not cotton waste
- Remove filter and clean. If fitted with paper elements, these should be renewed (only approved paper elements to be used)
- Uncouple pipework at the lowest point and drain mineral oil from pipework

Flush as follows:

- Fill reservoir with Safety Fluid HF-B to approximately 100 to 150 mm above suction pipe inlet
- Flush the system by operating under no-load conditions for the period recommended in technical service information
- Drain the flushing charge
- Swab out tank and drain pipework
- Clean filters or renew as applicable
- Fill reservoir with the required Safety Fluid HF-B product

Disclaimer Chevron accepts no liability for any loss or damage suffered as a result of using this product for any application other than applications specifically stated in any Product Data Sheets.

Health, safety, storage and environmental Based on current available information, this product is not expected to produce adverse effects on health when used for the intended application and in accordance with the recommendations provided in the Material Safety Data Sheet (MSDS). MSDSs are available upon request through your local sales office, or via the Internet. This product should not be used for purposes other than its intended use. When disposing of used product, take care to protect the environment and follow local legislation.

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