MAGNAVIS®

# Magnavis 7HF

## READY TO USE MPI INK

### *General Description*

Magnavis 7HF is an oil based ready to use black ink for wet method magnetic particle testing.

The ink is used in conjunction with suitable magnetising equipment to locate fine surface and slightly subsurface discontinuities in ferrous materials.

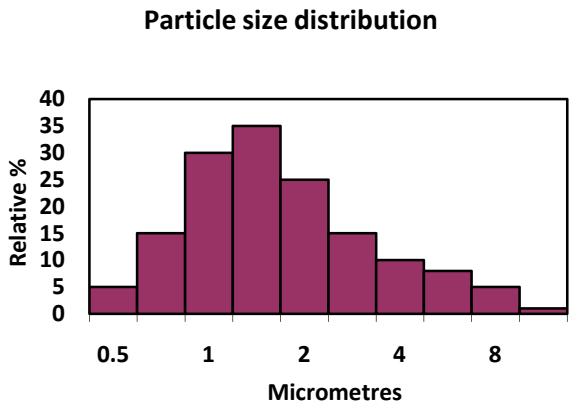
Typical defects found include shrink cracks, welding defects, grinding cracks, quenching cracks and fatigue cracks. 7HF gives clear black indications when viewed in daylight.

### *Composition*

7HF consists of a suspension of magnetic particles in a high flash petroleum distillate.

### *Typical Properties* *(Not a specification)*

| *Property* | *7HF* |
|---|---|
| Flashpoint (bulk) | > 93℃ |
| Temperature range | 5 - 50℃ |
| Viscosity @ 38℃ | < 3.0 cS |
| Settlement volume | 2.0 ml |
| Particle size range | 0.1 – 10 microns |




Like all MAGNAFLUX materials, Magnavis 7HF is closely controlled to provide unique batch to batch consistency and uniformity to assure optimum process control and inspection reliability.

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## Method of Use

Components should be cleaned prior to testing to provide a suitable test surface.

The ink can be applied by spraying, immersion or flooding.

The ink must be mixed thoroughly prior to use and must be kept agitated during testing.

- Using the wet continuous method, the ink is applied to all surfaces of the component during magnetization. The indications will be formed during the application of magnetising current. The flow of ink must be stopped before the magnetising current is switched off, otherwise there is a risk that the force of the ink application may wash away indications.

- Using the wet residual method, the premagnetised part is immersed in the bath, removed, allowed to drain and then inspected. This method is generally less sensitive than the continuous method and is more susceptible to rapid particle depletion and bath contamination.

In situations where the test surface colour is dark, a thin coating of a suitable white contrast paint such as Magnaflux WCP-2, may be applied prior to testing to provide a contrasting background.

## Bath Replenishment / Concentration Control

When in use, the magnetic content of any ink will become depleted (not applicable to aerosols). To guard against this the ink strength should be checked at least once each day. The most widely used method of control is by settlement volume using a graduated ASTM pear shaped centrifuge tube.

If the bath appears contaminated or has been in use for any length of time, the contents should be replaced.

After inspection the components should be properly demagnetized before cleaning to insure ease of particle removal.

## Specification Compliance

| *Specification* | *7HF* |
|---|---|
| ❑ AMS-2641A | ✓ |
| ❑ AMS-3043 | ✓ |
| ❑ ASME B & PV Code, Sec V | ✓ |
| ❑ ASTM E-709 | ✓ |
| ❑ ASTM E-1444 | ✓ |
| ❑ MIL-STD-271 | ✓ |
| ❑ MIL-STD-2132 | ✓ |

## Availability

7HF is available as follows:

- 10 x 400ml aerosols, part number 008A103
- 4 x 5 litre containers, part number 058C001

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## ***Health and Safety***

- Safety data sheets for this product are available on request from your Magnaflux distributor or via the Magnaflux website (www.magnaflux.com)
- Read the relevant safety data sheets before use
- Avoid contact with skin and eyes
- Avoid breathing spray mists
- Wear suitable gloves and eye protection if there is a risk of skin or eye contact

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