

# MV-740

## Water-Based Visible Magnetic Particle Suspension

A highly-sensitive water-based magnetic particle fluid for non-fluorescent (visible) wet method magnetic particle testing to locate fine and medium discontinuities on finished parts.

MV-740 provides clear, strong indications due to the heavy buildup of the highly magnetic particles. The product is ready-to-use, so no dilution is required.

MV-740 is often used with WCP-2 white contrast paint to improve contrast and inspection sensitivity.



### BENEFITS

#### Eco-friendly profile

- Environmental-friendly water-based formula
- Packaging made from post-consumer recycled plastic and can be recycled after use
- Non-aerosol format reduces disposal hassle and cost, and does not contribute hydrocarbon chemicals to the atmosphere

#### Maximize Application Versatility & Indication Detection

- Heavy build-up of highly magnetic particles around all leakage fields make for heavy contrast indications, especially when used with WCP-2 contrast paint
- Inspect a wide range of components without fear of corrosion or specification non-conformance
- Inspect in all conditions without the need for darkness or UV lights, including at temperatures below freezing
- Use with various applicators, choose the sprayer that works best for your application - no dilution required

### FEATURES

- Ready-to-use solution
- Clear indications under visible light
- Heavy particle buildup
- Great particle mobility
- Protects parts and equipment against corrosion
- Optimized surface wetting
- Works in visible light
- Water-based formula
- Low odor

### SPECIFICATION COMPLIANCE

- ASTM E709
- ASTM E1444
- ASME BPVC
- Boeing PS-21201
- ISO 9934
- MIL-STD-2132
- NAVSEA 250-1500-1
- NAVSEA T9074-AS-GIB-010/271

## APPLICATIONS

**Defect location:** surface and slightly subsurface

**Ideal for:**

- Detecting fine and medium discontinuities
- Field testing
- Spot inspections
- In-service inspections
- Machined parts
- Light surfaces
- Difficult to reach areas

**Defect examples:**

- Inclusions
- Seams
- Shrink cracks
- Tears
- Laps
- Flakes
- Welding defects
- Grinding cracks
- Quenching cracks
- Fatigue cracks

## PROPERTIES

<b>Appearance</b>	Water-based solution with fine particles
<b>Color in Visible Light</b>	Black
<b>Odor</b>	Odorless
<b>Mean Particle Size*</b>	< 2 microns
<b>SAE Sensitivity**</b>	> 6
<b>Flash Point</b>	> 212°F / 100°C

\* As determined by industry-typical method for measuring particle size

\*\* Representative of the number of indications on a tool steel ring as defined in ASTM E1444.

## USE RECOMMENDATIONS

<b>NDT Method</b>	Magnetic Particle Testing, Nonfluorescent / Visible, Wet Method
<b>Suspension Vehicle</b>	Water
<b>Required Equipment</b>	Magnetizing device
<b>Usage Temperature<sup>†</sup></b>	25 to 120°F / -4 to 48°C
<b>Freezing Point</b>	25°F / -4°C
<b>Storage Temperature</b>	50 to 86°F / 10 to 30°C
<b>Settling Volume</b>	1.20 – 2.40 mL
<b>Coverage</b>	833 ft <sup>2</sup> (77 m <sup>2</sup> )

<sup>†</sup> Particle integrity and mobility may decline beyond these temperature limits.

## INSTRUCTIONS FOR USE

Use MV-740 with appropriate magnetization procedure and equipment. For best results, all components, parts, or areas to be tested should be clean and dry prior to testing to provide an optimal test surface and reduce particle suspension contamination.

1. Shake well and fill into desired applicator. Recommended applicators include the SureShot Model B Atomizer Sprayer (8100CB) or the SureShot Model M Sprayer.
2. For best results, apply WCP-2 before MV-740 to improve contrast and inspection sensitivity.
3. Shake applicator well before use and occasionally during application to ensure suspension uniformity and concentration.
4. Using the continuous or residual application method, spray particle suspension over the test area until it is completely covered.
5. Inspect under visible light.

To verify system performance, conduct a sensitivity check using a known flaw standard prior to inspection.

### REMOVAL

All components, parts, or inspection areas must be properly demagnetized before cleaning to ensure easy particle removal. Cleaned parts may be treated with a temporary film protective coating if longer corrosion protection is required.

### STORAGE

Store in a cool, dry area away from magnetizing equipment and heat sources. Product age, exposure to elevated temperatures, and/or exposure to a strong magnetic field may adversely affect particle redistribution. Refer to Safety Data Sheet for additional storage instructions.

### PACKAGING

1 gallon (Case of 4)                      01-9140-35

### HEALTH AND SAFETY

Review all relevant health and safety information before using this product. For complete health and safety information, refer to the product Safety Data Sheet, which is available at [www.magnaflux.com](http://www.magnaflux.com).



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